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JUA KALI

Education, Training and Welfare

**A Study of Carpentry and Metal-Work
in the Eastlands of Nairobi, Kenya**

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**Institute for Development Studies
University of Nairobi
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*Njuguna Ng'ethe
and
Gichiri Ndua*

INTRODUCTION

This research was undertaken in the Eastlands of Nairobi between January and September 1984. The research was conducted primarily on behalf of the Undugu Society of Kenya, whose myriad activities on behalf of the urban poor and the urban disenfranchised are too well known throughout Kenya to require elaboration. Hopefully, the findings will help improve the condition of the urban marginalised so that they can help themselves in ways acceptable to society. As researchers, we welcome any opportunity to further our knowledge on the problems of urbanisation in Kenya, a research topic we have been tackling for some years now. In this particular study, we are glad to shed a little light on the opportunities available to the urban poor in Nairobi, most of whom eke out a living from the informal sector.

The research report is in six chapters, each of which, as much as possible, tackles a separate issue. Starting with an introductory chapter, the report ends with a chapter containing a summary of the main findings and recommendations. Then there is a short *Appendix* containing two case studies.

Chapter One

Approach and Research Methods

The Research Problem

This research was requested by the Undugu Society. Undugu was interested in understanding the whole process of training and skills acquisition in the informal sector and specifically in the carpentry and metal-work sub-sectors of the informal sector. Furthermore, the Undugu Society wanted to know whether and if so, how skills are related to welfare in these two sub-sectors.

The objectives of the study therefore were to analyse, understand and explain the dynamics of training within carpentry and metal-work sub-sectors, with the aim of ascertaining whether the whole process of searching for skills actually leads to acquisition of skills, and if so, whether the acquired skills lead to improved welfare on the part of those who acquire such skills. This is undoubtedly a fairly complex research problem, demanding an attempt to operationalize a whole set of variables and issues, most of which usually stubbornly refuse to be operationalized and therefore quantified. To complicate matters, the researchers had little to go by, by way of previous research. The closest previous research to tackle this question was Kenneth King's *The African Artisan* (1977). But that study's conception was slightly different from this one and the methods certainly less rigorous. Unlike other organisations, Undugu's concerns are immediate and urgent policy improvement in the area of training within the informal sector and this gives this study a major policy objective.

The Research Scope

One of the major challenges facing students of the Informal Sector is to develop a model for improving the "weaker aspects" of the informal sector skills-acquisition, without fundamentally altering the institutional arrangements within the sector. The hope is that once the model has been defined, it would be of use to organisations, including the Government, which are constantly searching for a viable and long term policy for the informal sector. In the search for the model, many

organisations including the Undugu Society of Kenya have been involved in training school leavers in the informal sector. Undugu in particular, has been involved in training school leavers in the theoretical aspects of metal-work and carpentry. Hence the choice of these two sub-sectors as the focus for this research.

The aim of this study is not to evaluate those students who have already been trained. Rather the aim is much broader, namely, understanding the bigger problem of skills-acquisition. A good understanding of this problem will hopefully lead in future, to better training programmes. Such programmes must be designed in such a way as to foster the positive elements of the informal sector training such as flexibility, market relevance, combination of training and production, cheapness to the tax payer, easy shift from training to self-employment etc. In other words, training will have to be done without altering (as far as this is possible) the prevailing institutional arrangements within the informal sector.

This study, therefore seeks to explore the following issues:

1. *How to increase appreciation for and knowledge of the informal sector training in government with the ultimate aim of exploring and encouraging government participation in training experiments.* Though it is too early to judge, it appears that there might be an opportunity, for example, to involve the government more in the paying of the instructors. However, government payment in itself is not the most important thing. Perhaps the most important thing is to establish the link as a kind of legal "go-head" for the informal sector training programmes.
2. *Understand the welfare of the trainees and how this is related to exploitation or non-exploitation of the trainees.* In general, the public is rather hesitant about informal training because it is perceived to be rather exploitative. Part of this perception is also encountered in the general attitude that informal sector training is illegal. This means that there is little a trainee could do to rectify the situation if, for example, he thought he was receiving too little benefits while being trained, inspite of his productive contribution. Could anything be done by way of amending the legal statutes to cover informal sector training and thus give more encouragement to the artisans?

3. Lack of legal "definitions" of trainee's welfare means that at the moment the trainee's welfare might largely be governed by social factors such as the relationship between the trainer and the trainee. Whether a trainee is a relative, friend, acquaintance, clan-mate etc., might be the decisive factors as far as exploitation or non-exploitation are concerned. Welfare of trainees might also be determined by other factors. Thus, the amount of fees demanded, trainees benefits like pocket money and food, length of hours spent on actual training, who actually does the training (the owner or another "older" trainee), the size of the workshop, the anticipated length of training etc.; all these might have an effect on the welfare of the trainees.

In the formal sector the welfare of the training is defined in the Industrial Training Act which is executed by the Directorate of Industrial Training. The Act prescribes: payment of trainees, control over the quality of the training, a saving scheme for tools for the trainees, no fees charged, days of leave, working hours registered and hence licensed factory, minimum education (CPE) for trainees etc. The prescriptions cannot be wholly applied to the informal sector but this is part of the research problem.

4. The central issue is how can the quality of the training be improved? The principal challenge, here, is to develop recommendations aimed at creating a cheap and adequate structure for improving the quality of the informal training which also includes ways and means of getting the training under control. It has been suggested that one way of improving the quality of training would be to organise training courses for *fundis* (trainers) where they are taught so as to transfer their knowledge systematically. This would include providing them with simple teaching aids such as exercise books and blackboards. In addition, suggestions have been made for monthly visits to advise on training, teaching theory to the trainers, limiting the number of trainees in workshops, assigning trainees to particular instructors, a saving programme for tools, simple business training, etc.
5. The issue of getting training under control is a great deal more tricky for it involves providing incentives to the trainers among other things. In the past, the Undugu Society has used business advisory approach as the carrot in order to persuade the *fundis* to

train well. This did not prove very successful, hence the need for more re-thinking. What is plausible is that there is a group of *fundis* who are motivated to train well, if only because they are training relatives. From a self-interested point of view, good training results in less spoilage of tools, and hence more production. Is this then the awareness which needs to be enhanced?

6. Since the overall theme of this study is skills acquisition and welfare, we are therefore ultimately raising the question: what is the value of the informal training? On the face of it, the value of the training is to improve the welfare of the trainees. Though it is difficult to devise an accurate measure of welfare, it can and is argued in this study that the best proxy for welfare is income, which in turn is directly related to the output from the enterprise. But before the relationship between training and welfare can be established, a host of other issues need to be cleared. These include, why trainees join the informal sector, the trainee's social economic background, their attempts or non-attempts to obtain formal employment, their own perceptions of the training process and the trainers, their future expectations, general problems encountered in training etc. It will also be necessary to look into the same issues in relation to the business owners, who are now the trainers, but who underwent the same process as their trainees.
7. Finally, it would be well nigh impossible to understand the training dynamics within the informal sector without looking at the same time at other prevailing business practices and conditions within the sector. After all, the enterprises are first and foremost precisely that: business enterprises and not training institutions per se. The latter must, therefore, as far as possible be located within the business context.
8. In summary, the research aims to understand the relationship between formal education, skills acquisition outside the formal system and the welfare of informal sector businessmen. In order to do this the study will:
 - a) First establish the existence of informal sector enterprises in both carpentry and metal-work.

- b) Look at the owners of the enterprises and how they train and were trained.
- c) Look at the business practices and milieu of the owners.
- d) Look at the trainees and how they view the training process.
- e) Look at the relationship between owners of enterprises (trainers) and the trainees.
- f) Try to assess quantitatively, where possible, whether and how training or skills are related to welfare, which is principally defined as output and income.
- g) Try to answer the question: Is training a worthwhile activity?

Definitions

Education

In this study, education is taken to mean years spent within the formal school system, namely standard one onwards. (Also see definition of variables within the study).

Skills

The total years of training including, and on top of formal school education.

Informal Training

The period spent or expected to be spent as an apprentice in the informal sector.

Welfare

Proxies by income from enterprise and output from enterprise, plus other "soft" measures such as where the trainers/ trainees live in the city, benefits available to trainees such as lunch and pocket money etc.

Informal Sector in Metal-Work and Carpentry

Taken to include only those enterprises with nine and less workers - including trainees. This is in keeping with recent trends in the definition of the informal sector where only one criterion is taken as the entry point and then the other characteristics of the sector are built into the enterprises as the research proceeds. This is as a result of the insoluble problems encountered by researchers when using multiple criteria such as those developed by S.V. Sethuraman (1976).

Carpentry and Metal-Work

In discussing the definitions used in this study, the first question that perhaps comes to the reader's mind is why carpentry and metal work and how are they defined? The main reason for choosing these two sub-sectors was that the Undugu Society had a particular interest in them in that it is in those two sub-sectors where their training experiment was, and is still being conducted. Hence the need to understand the total training dynamics in these two sub-sectors. We should add here that in defining carpentry, wood-carving (curios) was excluded since Undugu did not have any particular interest in this area. In defining metal-work, roadside mechanics were excluded since, again, our client was not involved in any training aspects in this area.

Nairobi - Eastlands

The definition of Nairobi Eastlands was agreed between the Undugu Society and the researchers. But, the Undugu Society was instrumental in deciding this issue since they wanted the research to be conducted in those areas where their interaction with informal sector entrepreneurs is most intense. Thus "Eastlands" was defined as Shauri Moyo, Gikomba, Eastleigh, Mathare Valley, Dandora and Kariobangi.

Methods and Data Analysis

In order to conduct the study, several methodological steps were necessary. These included use of questionnaire, conducting a baseline

and a sample survey, case studies and of course, machine processing of the survey data.

Baseline Survey

The first step in conducting this study was to establish the universe of metal-work and carpentry in the Eastlands of Nairobi. Having established the broad areas, the researchers, and Undugu personnel, literally walked over these areas establishing the exact boundaries of each geographical unit. For example, Shauri Moyo, street names and other prominent landmarks such as churches or law courts were usually used as boundary markers.

Having established the exact boundaries, trained enumerators under a survey Research Assistant were sent to the areas with instructions to enumerate both metal-work and carpentry establishments as defined and as they were trained to recognise them. The enumerators were also instructed to enumerate the establishments systematically beginning with one area such as Shauri Moyo. Furthermore, they were instructed to enumerate the establishments *following a certain easily recognisable pattern and to number them or give them any other form of identification for future recognition during sample survey*. Within one area, they divided the work among themselves usually using street names as the boundary marking where one's area began and the other's ended.

In this initial baseline survey, the enumerators were also instructed to obtain information on the number of employees and that of trainees in the enterprise and where possible, in cases where an enterprise had more than one trainee, indicate whether the trainee considered themselves *new* or *old*. This was because later, we wanted to interview a good mixture of old and new trainees according to *their* non-perception of the age of their training.

From the baseline survey, we were able to gauge the employment and training potential of the enterprises, in addition, to establishing the universe. The universe was 593 enterprises and is further analysed in chapter two.

Sample Survey Questionnaire

For purposes of the sample survey, a systematic questionnaire which contained both open and close ended questions was used. The Undugu Society had a chance to look at the questionnaire before it was finalized. The questionnaire was pre-tested using the same enumerators who had conducted the initial baseline survey. This gave them a chance to fully understand the questionnaire. They also translated it into Kiswahili in order to be sure they fully understood it because they were to administer it mostly in Kiswahili. A further reason for using the same enumerators was that they were familiar with the field layout, the system they had used in the initial survey, not to mention that they had, in most cases, become friends with the entrepreneurs; an advantage because, informal sector entrepreneurs do not easily befriend outsiders.

From the universe, a stratified and systematic random sample was selected for survey. The sample selection was a complicated process because the research had to ensure representation of the following:

- (i) The geographical locations in order of their "strength" as represented by the number of enterprises.
- (ii) A combination of enterprise owners in such a way that those with no trainees, one trainee, and more than one trainee were proportionally represented, and also, where possible, represented in each location.
- (iii) A combination of metal-work and carpentry such that they were proportionally represented.
- (iv) A proportional combination of "new" and "old" trainees where these existed.

Taking all the above into account, 63 enterprise owners out of a total of 593 enterprise owners were interviewed. These were broken down as follows:

2 trainees = 33

1 trainee = 11

No trainees = 19

Thus, the sample for enterprise owners was 10.6 per cent but was deliberately waived in favour of those with trainees since this was the main interest. As far as trainees were concerned, capturing the distinction between "old" and "new" trainees was not very successful. That is, although some did indicate the distinction as requested in the baseline survey, on further scrutiny it was found that the distinction was useless for analytical purposes. Thus the distinction was more or less ignored and 57 out of 424 trainees interviewed amounted to 13.4 per cent bringing the sample size for trainees and enterprise owners to 12 per cent. The results of the sample survey are analysed from chapter three onwards.

Case Studies

In addition to the survey data from both surveys, two case studies were conducted. The Undugu Society provided guidelines in the selection of the case studies since they were the most qualified in terms of the technical detail and the knowledge they were looking for. Though the case studies cannot be subjected to statistical analysis they, nonetheless, provide a wealth of detail which is highly illuminating. In addition to their own guidelines, the Undugu researchers used the sample survey questionnaire as an additional guideline in conducting the case studies. Selection of case studies was based on suggestions from Undugu which in turn were based on what Undugu conceived as potentially useful information in their current and future training programmes. However, an important point is that the case studies, due to the problems of space, have not all been reported in full but the results have been used to underscore certain points from the survey analysis.

Data Analysis and Limitation

The data are basically presented in the form of frequency distributions. Thus data on the general characteristics of carpentry and metal-work as generated from the baseline survey are presented in chapter two mostly in the form of frequency distributions. Data on business aspects and practices, the owners attitudes and training habits, are presented in the same way. Data presented in this way are what might be called "soft" data. What was considered as "hard" data were subjected to statistical

manipulation using the computer. In this respect, an attempt was made at correlations and several forms of regression analysis in an attempt to find meaningful functional relationships. As will become evident, not all the results were exactly "happy" but some are certainly worth the effort of collecting the data. It also certainly enriches our understanding of the relationship between the three key variables i.e., formal education, informally acquired skills and welfare.

Data collected from the informal sector is usually limited in many ways. Here we re-emphasize a recurring point as the data was analysed. This is the fact that there are so many non-quantifiable, some would say "social" factors affecting the behaviour of the informal sector, that it is almost impossible to specify the models to the degree one would normally like to. Thus, even some of the so-called "hard data" are in most cases, good approximations at best, and may be whimsical guesses at worst.

Finally, due to the stated data-related problems, some of the issues enumerated under "the scope" of this study have not been given the emphasis they otherwise deserve. Obviously there was need to be selective in emphasis. Consequently, only those issues directly related to the question of training have been fully analysed only to the extent that the analysis complements the central issue of training and skills acquisition.

Choice of aspects to emphasise was guided by the fact that the study is primarily policy-oriented. Thus the issues are raised and discussed as descriptively as possible, in spite of the many and (one should add), tantalising theoretical issues that a study of this nature is bound to suggest. This, does not mean that the research shyed away from theoretical issues especially when this is unavoidable.

Chapter Two

Baseline Survey: General Characteristics

Locational Distribution

As indicated in the introductory chapter this study is on carpentry and metal-work sub-sectors of the informal sector in Nairobi's Eastlands and it is imperative to have a picture of the distribution of this sector by location and type of activity.

Table 2.1

Distribution of activities by location and type of activity

	Metal Work	% of the	Carpentry	% of	Total	% of Total
		Total Metal		Total	Activity	No. of
		Work		Carpentry	(Metal work and carpentry)	Activity
Shauri-Moyo	104	36.36	19	6.19	123	20.74
Gikomba	15	5.24	97	31.60	112	18.89
Eastleigh	84	29.37	46	14.98	130	21.92
Mathare	20	6.99	36	11.73	56	9.44
Kariobangi	33	11.54	62	20.20	95	16.02
Dandora	30	10.49	47	15.31	77	12.98
Total	286	100.0	307	100.0	593	100.0

From *Table 2.1*, Shauri-Moyo had the highest proportion of metal-work (36.36 per cent) while Gikomba led the carpentry sub-sector with 31.60 per cent. Of the combined activities, Eastleigh heads the list. This could be as a result of the vastness of the area and the age of the location. The age factor is because Dandora for example, is a relatively vast place compared with Shauri-Moyo but ranks second from the bottom in the ranking as indicated in the table. Dandora is a new location compared to Eastleigh. A somewhat surprising feature is the low percentage of enterprises found in Mathare, a place which is presumably renowned for her informal sector activities. This low figure may mean that Mathare is popular for informal sector activities other than carpentry and metal-work. Alternatively it could mean that most of the metal-work and carpentry activities have shifted to Dandora which is a relatively new and spacious estate. There is also a likelihood that some of the activities originally centred in Mathare have moved to other poor population centres like the neighbouring villages of Ngomongo and Korogocho. Whatever the explanation, the findings were somewhat surprising.

Total Personnel Engagement

On the basis of theory, it would be expected that Eastleigh with the highest percentage of total activities should have the highest number of people engaged in these sectors as employees and trainees. This expectation is actually realised when on examination of the distribution in number of persons engaged by location, type of activity and nature of involvement.

A look at the personnel engagement by location and type of activity and then the average figures per enterprise shows Mathare, which accounted for 9.44 per cent in the distribution of enterprises, has a more or less similar distribution of number of people engaged i.e. 9.55 per cent. Gikomba with 19.89 per cent of the enterprises engaged 30.28 per cent of the personnel. This suggests under-employment. Alternatively Gikomba has bigger enterprises as measured on the basis of investment and labour requirements. This possibility is however less likely given the poor availability of capital.

Table 2.2 Distribution of personnel engagement by location and type of activity

	Number of Trainees	Number of Employees	Total Metal-work	% of Total Metal Work	Number of Trainees	Number of Employees	Total Carpentry	% of Total Carpentry	Total Employment	% of total Employment
Shauri-Moyo	45	89	134	19.65	19	32	51	5.95	185	12.02
Mtware	23	52	75	11.00	35	37	72	8.40	147	9.55
Gikomba	19	46	65	9.53	55	346	401	46.79	466	30.28
Kario-bangi	22	51	73	10.70	54	97	151	17.62	224	14.55
Eastleigh	93	150	243	35.63	27	76	103	12.02	346	22.48
Dandora	20	72	92	13.49	12	67	79	9.22	171	11.11
Total	222	460	682	100.00	202	655	857	100.00	1539	100.00

The logical explanation is that there is unwarranted or excessive division of labour implying lower average incomes. In other words, marginal product of labour should be lower in Gikomba than in other locations; *ceteris paribus*. An alternative hypothesis is that this figure is best explained by the composition of the activities - an issue raised later - but for the moment, observe that Eastleigh which had the highest share of enterprises (21.92 per cent) matched this with a similar share of total people engaged at 22.48 per cent. (Table 2.2).

Distribution of personnel engagement on the basis of average per enterprise (Table 2.3) reveals the interesting feature that Gikomba has the highest number of people engaged per enterprise. Why is this so?

This has something to do with the internal composition or dynamics of activities which in turn is explained by the location of the activities. May be carpentry, which dominates Gikomba, simply needs more hands.

Shauri-Moyo which accounted for 20.74 per cent of all the enterprises and 12.02 per cent of the labour involvement had the lowest average number of personnel engaged. This suggests strongly that most of the enterprises in Shauri-Moyo are single-owned, single-operated as indicated in Table 2.3.

There is need to examine distribution by type of activity in order to understand further the issue of the distribution of personnel. Shauri-Moyo with the lowest average persons per enterprise had the majority of metal-work i.e. 36.36 per cent while Gikomba, which has the highest average number of people engaged had a 5.24 percentage share of the metal-work and 31.60 per cent of the total carpentry. It is therefore tempting to conclude that metal-work is more capital intensive than carpentry i.e. it requires less labour than carpentry, as already alluded to. This is an issue to return to later when discussing statistical relationships later.

In this respect space is likely to be another factor. Eastleigh compared to Mathare, is spacious such that workshops are not likely to be constrained by non-availability of space, land tenure withstanding. This means that metal-work in Eastleigh which comprises 29.37 per cent hired a bigger proportion of labour compared to Mathare which hired 6.99 per cent. However, Mathare is somewhat redeemed by its share of carpentry which is 11.73 per cent. This leaves the locational mean personnel engagement figure at more or less the same level i.e. at 2.28 and 2.66 in Mathare and Eastleigh respectively.

Table 2.3

Average number of people engaged per enterprise

Location	Total Number of Enterprises	Total Number of people involved	Number of persons per enterprise
Shauri-Moyo	123	185	1.50
Gikomba	112	466	4.16
Eastleigh	130	346	2.66
Mathare	56	147	2.62
Kariobangi	95	224	2.36
Dandora	77	171	2.22
Total	593	1539	2.60

Trainees

Since this study is primarily aimed at examining education and training within the metal-work and carpentry sub-sectors, the question of trainees emerged from the baseline survey. One of the most disturbing factors to emerge from the baseline survey was that training within carpentry and metal-work in the enumerated areas is perhaps not as popular as anticipated. Out of the total 593 enterprises which were originally enumerated, more than half did not have any trainees. Thus only 244 enterprises had any trainees at all (*Table 2.4*).

Table 2.4

Distribution of enterprises without trainees by location

Location	Metal Work	Work Carpentry	Total
Shauri-Moyo	76	10	86
Gikomba	10	69	79
Eastleigh	47	28	75
Mathare	10	20	30
Kariobangi	18	25	43
Dandora	17	39	56
Total	178	191	369

Table 2.5

Distribution of enterprises by location and number of trainees

LOCATION	METAL WORK				CARPEN-TRY					
	One Trainee	More than One	Total	% of Total Metal	One Trainee	More Than one	Total	% of Total Carpen-try	Total Carpen-try and Metal Work	% of Total Carpen-try and Metal Work
Shauri-Moyo	20	9	29	26.61	3	6	9	7.83	38	16.96
Mathare	3	7	10	9.17	8	8	16	13.91	26	11.61
Gikomba	1	4	4	4.59	11	16	27	23.48	32	14.29
Kariobangi	9	6	15	13.76	26	11	37	32.17	53	23.21
Eastleigh	12	25	37	33.94	10	8	18	15.65	55	24.55
Dandora	8	5	13	11.94	6	2	8	6.96	21	9.38
Total	53	56	109	100.00	64	51	115	100.00	224	100.00

Metal work, (Table 2.5) shows that 53 enterprises had one trainee and 56 enterprises had more than one trainee, a fairly even distribution between *one* and *more* than one trainees. The first interesting finding on the locational distribution of metal-work trainees is that, Shauri-Moyo carries slightly more than one-third of those enterprises with one trainee (20). Eastleigh is second with 12 enterprises. The second interesting finding is that with respect to those enterprises with more than one trainee, Eastleigh has nearly half of them (25 out of 56). Eastleigh's propensity *to* train might be explained by the size of workshops in this area and the available space. On the other hand, Dandora's propensity *not* to train more than one trainee (5 out of 56) could be explained by the "newness" of enterprises in Dandora. Still a few more observations on metal-work can be made.

Out of the enterprises with trainees, Eastleigh claims the highest share accounting for 33.94 per cent. Gikomba which accounted for the highest mean employment figure per enterprise has the lowest share of enterprises with trainees (4.49 per cent). One possible explanation for

this finding is that employment is related to skills such that enterprises in Gikomba engage people with skills and would therefore find trainees to be time consuming.

The issue of the relationship between training and employment is central to this research and shall consequently be addressed in the section dealing with statistical relationship. For now an alternative and perhaps a more plausible explanation for the above observation is that given that activities in Gikomba are dominated by carpentry, this type of activity is skill specific. Thus it calls for specialization and hence a finer division of labour. Under such circumstances, training is perhaps of little importance or even a downright nuisance.

As regards carpentry, *Table 2.5* shows that 64 enterprises had one trainee and 51 enterprises had more than one trainee. Once again, carpentry shows a lower willingness to train compared to metal-work, hence the fewer number of enterprises with more than one trainee in carpentry. Looked at in detail, the figures in *Table 2.5* further reveal that Shauri-Moyo had the lowest share of those with one trainee (3 out of 64), perhaps mainly because Shauri-Moyo is a metal-work location; and metal-work seems to "enjoy" training. Still on enterprises with one trainee, note that Kariobangi accounted for the most enterprises (26 out of 64), followed by Gikomba (11 out of 64); Kariobangi is therefore a good "one trainee" area.

Indeed, carpentry enterprises with more than one trainee have the same pattern. Once again, Kariobangi turns out to be a good trainer with 26 out of 51 though in this case, Gikomba does much better with 16 out of 51 enterprises with more than one trainee. However, when all carpentry enterprises with trainees are taken together, Kariobangi tops the list with 37 out of 115, followed by Gikomba with 27 out of 115 enterprises.

In summary, when the distribution of all enterprises with trainees in carpentry is taken into account, Gikomba accounts for 23.48 per cent (this in spite of the fact that it ranks first in distribution of enterprises by type of activity) after Kariobangi. This tends to reinforce our earlier suggestion that employment is a function of skills, among other things. This would underline the need for training. It would also suggest that most businesses in Gikomba are motivated by search for profit which is linked to output. It would therefore appear that the marginal product

of skilled labour is higher than that of unskilled labour or apprenticeship and hence employment would vary positively with output. Finally, note that at the macro-level, distribution of establishments with trainees between metal-work and carpentry is almost symmetric with metal-work taking 52.36 per cent while carpentry takes 47.64 per cent.

Table 2.6

Distribution of trainees by location and type of activity

Number of Trainees in Metal Work	% of Total Metal Work	Number of Trainees in Carpentry	% of Total Carpentry	Total Trainees in Carpentry and Metal Work	% of Total Carpentry and Metal Work	
Shauri-Moyo	45	20.27	19	9.41	64	15.09
Maihare	23	10.36	35	17.33	58	13.68
Gikomba	19	8.56	55	27.23	74	17.45
Eastleigh	93	41.89	27	13.37	120	28.30
Kariobangi	22	9.91	54	26.73	76	17.92
Dandora	20	9.01	12	5.94	32	7.55
Total	222	100.00	202	100.00	424	100.00

An examination of the distribution of trainees by location and type of activity (*Table 2.6*), shows that all the trainees engaged in metal-work, Dandora claimed 9.01 per cent while Eastleigh has 41.89 per cent. Eastleigh's figure is not surprising given that Eastleigh had the largest share of total activities (21.92) and second-largest share of metal-work activities (29.37) next to Shauri-Moyo (36.36). Still, Eastleigh's large share of metal-work trainees is out of proportion with its share of metal-work activities. Thus, the place is a good training ground; certainly better than Shauri-Moyo which trains only 20.27 per cent while having 36.36 per cent of metal-work enterprises. This situation, once again suggests the hypothesis that training and workshop space are somehow related. Thus, if the workshop is constrained by the availability of land as in Shauri-Moyo, this will affect the willingness and ability to train. Unfortunately the available data was not systematic enough to allow this hypothesis to be tested.

It is evident that overall, metal-work tends to train more than carpentry. Of all trainees, metal-work accounted for 52.31 per cent while out of the universe, metal-work comprised 48.23 per cent. To the extent that carpentry requires a lot of tools, it is possible that entrepreneurs are less keen on admitting trainees.

Sub-Sectoral Employment

Out of 593 enterprises enumerated, the owners claimed that they had a total of 1,115 employees which gives a mean of approximately 2.0 employees per enterprise (*Table 2.2*). The survey further revealed that out of 593 enterprises, 176 enterprises in metal-work and 196 in carpentry had employees. Thus altogether 372 enterprises had employees, which raises the mean employees per enterprise for those with employees. The other 110 in metal-work and 111 in carpentry for a total of 221 were single-owner, single-operated.

How is this employment distributed by location and type of activity? Of all the single-owner, single-operated activities, Shauri-Moyo accounted for 56.36 per cent while Gikomba had 0.9 per cent. This is perhaps explained by the fact that metal-work is not important in Gikomba. Carpentry reveals a reversed order, which suggests that distribution of the dominant activity is location-specific i.e. once some particular activity has started to grow at a particular area, it acts as an impetus attracting other types of businesses. This may be because of external economies of scale.

For enterprises with more than one person in metal-work, Eastleigh leads the way while Gikomba comes last, once again suggesting a specialization on a regional basis (*Table 2.7*).

Given the big percentage of self-owned and self-run enterprises, it would appear that employment generation is determined endogenously to the firm. In other words, there is little hope that there would be any reorganisation internal to the firm that would lead to significant employment generation. This would further suggest that most businesses have come about as a result of a need for self-employment i.e. generating one's occupation, a fact which might have an effect on the size of the business and hence the business ability to train.

Table 2.7
Distribution of enterprises by employment and location

	Single - Owner (one Person)				More than One Person				Both Single and More than One	
	Metal Work	% of Total	Carpent ry	% of Total	Metal Work	% of Total	Carpent ry	% of Total	Total Carpentry and Metal Work	% of Total Metal Work and Carpentry
Shauri- Moyo	62	56.36	8	7.21	42	23.86	11	5.61	123	20.74
Gikomba	1	0.91	25	22.52	14	7.95	72	36.73	112	18.89
Eastleigh	30	27.27	15	13.51	54	30.68	31	15.32	130	21.92
Mathare	4	3.63	17	15.32	16	9.09	19	9.69	56	9.44
Kariobangi	7	6.36	24	21.63	26	14.77	38	19.39	95	16.02
Dandora	6	5.45	22	19.82	24	13.64	2	12.76	77	12.98
Total	110	100.00	111	100.00	176	100.00	196	100.00	593	100.00

Going back to the sub-sectors, it has already been pointed out that carpentry seems to be more demanding both in terms of skills and equipment needs. However, given its dominance in the universe (51.77 per cent), it can be safely concluded that there is a lot of need for training in this sub-sector. What type and from where is a question addressed later. However, if carpentry is going to maintain the lead and given that most of the metal-work activities are sole proprietorships, which also implies skills, then there is an urgent need for training and skill acquisition. But whether the training results in increased welfare is a question deferred for the moment.

Chapter Three

Sample Survey: Business Owners

Social Background

As stated in chapter one, the sample for business owner was 10.6 per cent. The sample was selected in a randomly stratified manner. It was stratified on the basis of location and type of activity. It was further stratified to be representative of all categories of businesses i.e single-owned, single-operated enterprises, enterprises with employees, enterprises with one trainee, enterprises with more than one trainee and enterprises with no trainees.

Out of the sample, 50.79 per cent was composed of metal-work while carpentry took the remaining 49.21 per cent. Thus the distribution of both was almost equal.

As far as business owners were concerned, 98.41 per cent of the businesses were male-owned while 1.59 per cent were owned by the feminine gender. The female ownership resulted from the demise of the owner's husband thus leaving the wife with no option except to take over the running of the business. The male dominance is not unexpected given the nature of trades the study addressed itself to. Carpentry and metal-work can be classified as male professions if not by definition, then certainly by Nairobi practices.

The business owners can be said to be old because 85.71 per cent were married besides the average age was 34.86 years. However, the majority of those who were married had one wife i.e. 87.04 per cent. Those with two and more wives constituted 12.96 per cent. Out of the married group, the majority had more than four children.

In fact, those with more than two children constituted 68.85 per cent. The dependency problem comes to light when we note that those with children of school going age i.e. of 17 years and under comprised 91.71 per cent while out of the entire sample, just slightly under 16 per cent, did not have any dependant. The nature and degree of dependency is best illustrated in *table 3.1*.

Table 3.1.

Type of help provided to the dependents

Help	Frequency	Percentage
School fees	18	20.22
Food and clothing	44	49.44
Shelter	10	11.24
Any other	17	19.10

Food and clothing claims the highest share which may be the result of the traditional extended family syndrome. It might be equally capturing some proportion of rural-to-urban migration. The component of "Any Other" claiming 19.10 per cent represents the occasional remittances to friends and relatives.

The majority of respondents i.e. 98.41 per cent, were migrants and 42.86 per cent had lived in the town for more than twelve years. Those who had stayed for more than five years comprised 84.13 per cent. This suggests that the entrepreneurs in the informal sector are not straight from their regions of out-migration. They have been around Nairobi for quite some time.

A good proxy of levels of standard of living and consequently social background is the nature of residential areas. Of all the respondents, 4.76 per cent claimed that they resided in middle-income areas. 9.52 per cent had no response but it could be possible that they were "pirating" or staying in make-shift premises so that the question of residential area did not meaningfully arise. Not surprisingly, 52.38 per cent claimed that they lived in low-income group areas while 33.33 per cent flatly claimed that they lived in the slums. Thus over 85 per cent resided in "poor" areas. Assuming that the operators were rational and assuming no misers, we can safely conclude that operators are generally poor. We of course have to make the further assumption that shelter, clothing and food carry equal weight.

The value attached to residence is further grasped by checking the amount paid as rent. 9.52 per cent did not respond as to whether they paid any rent. This is likely to be the group of no-fixed aboard as far as residential area status is concerned. 3.17 per cent paid nothing while a similar percentage paid rent in excess of Kshs 300. A further 12.70 per cent paid Kshs. 51 - 100 and another 12.70 per cent paid Kshs. 101 - 150. Only 14.29 per cent paid Kshs. 151.- 200. By all standards, none of these figures is anywhere near the rental payment of a "single" room measuring 10 by 15 feet in any of Nairobi's "renowned" housing estates, unless one is residing in a City Council room, which is an unlikely possibility for our subjects.

The "poverty syndrome" emerging from the above social background is further reinforced when we look at the number of individuals residing together under above. While 26.98 per cent did not live with any dependents in the same "house", 38.10 per cent had 1 - 3 dependents under the same roof, and 11.11 per cent had 4-6 dependents. 7-10 dependents was reported by 7.94 per cent. The "no reply" group constituted 15.87 per cent. By any standards, our respondents most probably live a crowded existence in crowded "residential" areas, which says quite a lot about their welfare.

Business Environment and Practices

As regards business ownership, all the sample respondents owned their businesses while 96.82 per cent managed the business fulltime. Thus the widely held notion of informal sector activities being part-time in nature does not hold in this case. This could be as result of lack of other activities to engage in. Surprisingly enough, 68.25 per cent of the respondents have had employment elsewhere. This could have been in the formal or informal sector. Either way, they are not novices in employment. Rightly therefore skill and experience are a necessary pre-requisite in engaging in the informal sector activities (recall that we earlier argued that self-employed persons should be treated as skilled labour).

There was, however, a sizeable proportion that went into business as a result of 'other' reasons (20.63 per cent). This could be as a result of encouragement by relatives and friends when staying with them or as a result of prestige associated with ownership of business.

The above argument is further reinforced by the fact that 38.10 per cent started the business due to lack of employment (temporary unemployment). Another interesting feature is that all respondents did not have any branch or show-room elsewhere - both in the town(s) or in the rural areas. This phenomenon says a lot about the pattern of growth of informal sector firms which we return to later.

As for the selection of the site of the business within a particular location 33.33 per cent of the respondents noted that their location was the only place available while 23.81 per cent underlined the access to good markets as the reason for location-selection. Very surprisingly, consideration of availability of raw materials was cited by only 1.59 per cent, creating the impression that transportation is not a problem, and perhaps dispelling the conventional impression that informal sector entrepreneurs are scavengers. 41.27 per cent of the owners responded that they had "other" considerations. For example, given the illegality of some of the businesses, some entrepreneurs could have chosen some "dark corners". But the fact that entrepreneurs were able to minimise expenses by sharing workshops could also have pulled some of them to particular places where sharing was possible. Besides, external economies of scale were also likely to have had a significant pulling force.

The sharing view is further supported by the realization that 51.61 per cent of the respondents said that they did not possess the plot but were, rather, sharing. Those who simply found an empty space and decided to utilise it constituted 14.52 per cent while council plots allottees constituted 8.06 per cent. Those who owned their plots were 6.35 per cent of the sample while 20.97 per cent operated on friends' plots.

As far as licences were concerned, the majority of our respondents did not have any licence. This fact is not hard to believe when we recall that those allocated plots by the municipality constituted only 8.06 per cent. Thus a hefty 63.49 per cent had no licence which suggests that the municipality loses a lot of money in terms of licence fees; only 22.22 per cent claimed to be having a licence.

The fact that the majority did not have any licence may also suggest lack of proper administrative policing and also inefficiency on the part of the city government. We note however that Nairobi

Eastlands is a fairly big place to police effectively, compared say, to Nakuru, where virtually all entrepreneurs have licences (Ng'ethe and Ndua IDS 1991). Furthermore, some of our subjects have some sort of "permit" as opposed to "business licence".

How about sources of capital?

Table 3.2

Sources of capital

Source	*Number	Percentage
Previous Savings	60	81.08
Formal Loan	1	1.35
Informal Loan	9	12.16
Others	4	5.41

*N = More than 63 due to multiple responses

Most respondents relied on their past saving i.e. 81.08 per cent (*Table 3.2*). When we recall that 76.19 per cent had other employment before going into present trades, this finding more or less makes sense. The fact that formal loans constituted a mere 1.35 per cent may explain the low investment capital in the informal sector which indicates a good measure of reliance on relatives and friends as sources of investable funds. As far as working tools and equipment were concerned, 83.08 per cent bought their tools while 15.38 had either rented or borrowed tools from other people. Thus, acquisition of tools acquires a major importance in the initiation of business.

A percentage of 82.26 started the business on their own while the complement started with others. An equally large 87.69 percentage made the decision themselves to begin the business. It therefore looks like entrepreneurs are a highly individualistic lot. Of the numerous problems faced by the informal sector, lack of capital was cited by 31.15 per cent while lack of inputs and tools and lack of customers claimed 27.94 and 25.00 percentage points respectively. Lack of facilities was cited by 16.18 per cent while somewhat unexpectedly, administration harassment was cited by a meagre 0.74 per cent. It

would therefore appear that the much publicised "harassment" are simply occasionally staged shows.

Lack of capital is a particularly severe issue because without credit facilities one cannot acquire the tools. While credit facilities may exist in the formal sector, most people are not likely to go for them. This may be either due to ignorance or failure to qualify for the credit. We have, however, noted with concern that the entrepreneurs have a high propensity to informal sector loans. This may be as a result of rational decision-making in that even if the business fails, they do not have to loose any mortgaged property! Whichever way it is looked at, lack of tools may be as a corollary of lack of capital, notwithstanding the low initial capital investment. Most entrepreneurs do not consider demand factors as very important which implies that they are unlikely to be satisfying the existing demand and this suggests that there is a ready-market for the informal sector goods.

As regards the use of unpaid family labour in the business, 84.13 per cent of our respondents did not use unpaid family labour while 7.94 per cent utilised the services of 1-2 persons. Lack of widespread use of family labour can be seen in the light of the types of trades under discussion. The trades call for skills and training. Alternatively, it can be seen in the light of migration. Thus the businessmen work far away from home where their families are tightly glued to rural surroundings. Whatever the explanation, we note that of those who got some assistance, only 6 out of 10 i.e. 60 per cent did so fulltime. This tends to imply lack of alternative employment given an efficiently operating monetized economy.

A widely held view is that the growth of the informal sector is held back by lack of market. This, so the argument goes, may be due to lack of transport or due to legally enforceable restrictions. In this connection, it was pleasantly noted that 98.41 per cent of our respondents were not restricted by anybody from selling their products anywhere. It can of course be argued that no one can restrict them since they have no licences anyway. In other words, they do not "legally" exist and hence cannot be controlled. However, a small percentage reported administrative restrictions. Who then buys the products from these businessmen? *Table 3.3* summarises this information.

Table 3.3.

The main buyers of the informal sector products

Category of Buyers	*Respondents	Percentage
Local People from this Area	48	33.50
People from Town	47	31.76
Traders who sell to other people	17	11.49
Traders who sell to other Towns	12	8.11
Others	4	2.70

* Multiple responses. Hence more than 63.

Of the different categories cited, local people took the lion's share while people from town came second. In other words, direct satisfaction of demand at gate prices served 69.26 per cent of the various categories. This suggests that location of these industries is demand-determined; not a surprising observation when recalled that lack of raw materials was cited only once as a problem. Note that exports to other towns and rural areas constituted 8.11 per cent, which is not an insignificant amount. The role of middlemen is not terribly important in these industries even though they buy 11.49 per cent of the products.

How about inputs? 58.73 per cent obtained inputs outside work location; a somewhat surprising finding given the conventional notion that informal industries usually locate near sources of inputs. Only 39.68 per cent obtained inputs near work location, a large enough percentage but perhaps smaller than expected. With respect to machinery, 80.96 per cent of our operators had their own machinery and did not rent any. Of these "owned" machinery, locally made ones constituted 72.00 per cent in terms of number of units while contributing 63.76 per cent in terms of value. This, 'national' technology is quite important in these enterprises. A further point with

respect to machinery is that the data suggests undervaluation of labour and/or raw materials, assuming that they are available locally. This is because imported equipment comprised 20.40 per cent of the units while in terms of valuation, they accounted for 35.87 per cent.

Does this also suggest currency undervaluation may be resulting from devaluation? Note however, that the unit percentages are not strictly speaking comparable because we might be having small items of locally made tools like hammers while imported items could be huge items like electric drills. This observation notwithstanding, it can still be asserted, with a fair measure of confidence, that the informal sector is heavily dependant on locally made tools and equipment and thereby curbs, among other things, the drain on foreign exchange.

Sales also display seasonal variations. The last quarter of the year carried the highest proportion i.e. 31.27 per cent. No doubt this proportion is dominated by December Christmas season sales. The second quarter (April-June) had the lowest (15.69 per cent) may be due to long rains which call for remittances of savings so as to help in acquisition of necessary farm materials e.g. seeds, fertilisers, etc. Note further that 9.80 per cent of the sales registered no seasonal variations. These are most likely those which provide "near" necessity goods like beds and jikos whose demand is heavily dependent on the population growth and not on seasonal monetary windfalls or lack of.

Book-keeping?

Most respondents i.e. 60.40 per cent did not find the need for keeping books of accounts. Of those who did not keep books of accounts, 36.84 per cent felt that their businesses were too small while 26.32 per cent reported lack of knowledge as the reason for not keeping books. The remaining 36.84 per cent of those who did not keep any books did not do so for 'other' reasons. For example they did not see the benefits arising from such an exercise and did not bother. The hefty percentage that did not keep any books of accounts gives cause for worry. Do these people really "know" what is happening to their money?

On sales an interesting finding was that though working in a common location and in most cases producing similar products, the sale of commodities was rather an individualistic trait already alluded to. Thus, 87.31 per cent reported a "go-it-alone" approach with the

remaining 12.69 per cent claiming that they co-operated when disposing of their products.

How about competition? Competition from big and small firms, both formal and informal, is summarised in *Table 3.4*.

Table 3.4

Competition from other firms

Type of Competition	Response	Percentage
Much Competition	21	33.33
Small Competition	9	14.29
No Competition	29	46.03
Don't Know	4	6.35

N = 63

To the extent that only 33.33 per cent claim to be encountering stiff competition, it can be said that growth in this sector is being constrained by other than competition or lack of demand. After all, two-thirds are contented with their market share. In a situation like this, the constraint is likely to be capital - regardless of the form. However, note that location could also be a factor. In this respect, 80.95 per cent revealed their preference in regard to changing location of their businesses. Of these, 49.02 per cent claimed they would prefer a different location where there would be more customers. 37.25 per cent had other considerations like being near their residential areas, nearer the sources of raw materials or the market. 13.73 per cent cited better facilities as the prime factor prompting their desire to be located elsewhere. This is an acceptable reason especially when facilities referred to are health-oriented e.g. sewerage and toilet facilities not to mention transport and electricity. All the same, the important finding is that by far the majority would prefer a different location.

Of the 63 respondents, 28 did not pay any business rent. Of the rest who paid, 74.29 per cent paid rent in the region of Kshs. 1 - 500. 17.14 per cent paid anything between Kshs. 501-1000 while only 5.71

per cent paid over Kshs. 1500. Given that the majority paid Kshs. 1 - 500, it is safe to say that this reflects the fact that most of the workshops are small or the structures are temporary and that the landlords therefore have nothing which is actually depreciating. In fact the common practice seems to be that the landlords rent the land as opposed to buildings. With respect to the business premises, note that out of the survey sample, 63.50 per cent did not share their premises. Here it is suspected that this question was misunderstood, if not actually badly framed in that the question perceived a rental building or a properly demarcated plot. In cases where the area belonged to the municipality such that people did not pay rent, the question was therefore both ambiguous and dubious.

Nonetheless, of the 14 who reported some sharing, eight premises had 1 -2 operators. Three premises reported over 10 operators. While one would expect sharing to be promoted by cost considerations, this does not appear to be the case because the majority of those who shared (64.29 per cent) paid Kshs. 1 - 500 and 21.43 per cent paid kshs. 501-1000 while 14.29 per cent shared rent in the region of over Kshs. 1500. But then again, these rents could be considered large enough to be worth sharing.

Of those who paid rent, 80 per cent paid to the landlord, 11.43 per cent paid to the council while 2.86 per cent paid to the tenant. Payment to 'other' persons, most likely to the landlord's lawyers, relatives or friends, constituted 5.71 per cent. The low share of the municipality, once again, suggests inadequate policing and the 'unlicensed' nature of the businesses as revealed by the data. The question then becomes: can this be tolerated given the revenue shortcomings of the city government? True, these businessmen usually operate on municipal areas reserved for road expansions or play grounds, a fact borne by the finding that of those who did not pay any rent, 89.29 per cent did not own the land, but use municipal property.

Most informal sector activities are thought to be carried out in semi-permanent structures or no structures at all - a characteristic some researchers have used as a working definition for their studies in the informal sector. The plausibility of such a definition is borne out in the descriptions of the working places brought out by this study. *Table 3.5* summarises these descriptions.

Table 3.5

Type of the workshops/premises

Type	Number	Percentage
Good Permanent Structure	8	12.70
Semi-Permanent	17	27.00
Temporary Structure	26	41.27
No Structure	12	19.05

N = 63

Of the eight operating in good permanent structures, three claimed that they operated from their houses mostly in Dandora. This explains the "good permanent structures". Of the remaining five, four are likely to be the City Council allottees. Semi-permanent structures (which in all likelihood are temporary) comprised 27.00 per cent. Participation from temporary structures constituted 41.27 per cent. Actors from open air i.e. no structure at all were 19.05 per cent. This distribution was not without (a) reason(s) in that most of the operators did not have a licence and would therefore hate to lose investible funds should their improved structures be demolished by the City Council.

Insecurity of land tenure would equally deter the operators from constructing permanent structures. Amazingly enough, the data indicates that some of the semi-permanent structures must have been approved because approved structures stood at 33.33 per cent compared to unapproved ones which were 66.67 per cent. What is not clear is whether the approval of the semi-permanent structures acknowledged the contributory role played by this sector or it was because the structures met some laid down requirements or 'other' conditions. Regardless of our interpretation about the structures, one important observation for this study is that most of these establishments operate under fairly bad conditions. *Table 3.6* presents the distribution of some amenities at the workshops and gives a good idea of the work place conditions.

Table 3.6

Distribution of amenities at the workshops

Amenity	*Frequency	Percentage
Electricity	18	15.93
Tap Water	14	12.39
Toilets	16	14.16
Showers	9	7.96
Security	20	17.70
Roads	36	31.86

* *N = More than 63 due to multiple responses*

Note that only nine times do showers occur which is also the same number of persons with permanent structures who were operating from their houses. Otherwise, even in huge formal sector complexes, there is no running water, let alone showers. In this respect, it was further found out, with regret, that tap water was only available to fourteen business premises while toilets were available to sixteen business enterprises. One notable feature is that even when the toilet may be said to be *theirs*, the respondent may not be referring to "his" *own* toilet but might be referring to a case of getting a toilet in a nearby surrounding i.e. public toilets. The same holds true of water. The respondent may be referring to free water i.e. non-metered water which means that the water is not exclusively his i.e. the business.

In this respect, some businesses tend to make some deals for supply of electricity from their neighbours who happen to be legally having power installations. Such arrangements in addition to those with legal accounts with Kenya Power & Lighting Company Ltd. accounted for 15.93 per cent while security was cited 17.70 per cent. This latter figure is likely to be lower if people operating in their residential locations are concluded. For instance, those operators who have been staying and operating from Mathare for periods of more than ten years are not likely to testify of any insecurity. Anybody entering Mathare for the first or second time feels otherwise. Road facilities fielded the

highest percentage of 31.86 points. This is simply due to the fact that the road is not exclusively meant to cater for them. It is a "public good" and hence serves them "by default", as it were.

As far as use of transport is concerned, 74.60 per cent of our respondents used transport services for bringing in their input requirements while only 25.40 per cent used it to transport their products. This latter figure suggests that the majority catered for a highly localised market if not selling to middlemen on the spot. However, the latter is less likely given what was noted earlier that the role of middlemen in this sector is not pervasive.

It was argued earlier that insecurity of land tenure and fear of demolition held back construction of permanent premises. This view is supported by the finding that 95.24 per cent of respondents would build a better place if allowed. This is further supported by the fact that 93.66 per cent of the respondents were willing to pay for better places. However, only 81.36 per cent were willing to pay anything between Kshs. 1 and 1000 with 47.46 per cent willing to pay a maximum of Kshs. 500. This may be due to low levels of income pitted against the type of workshops necessary. However, the workshop need not be sophisticated. After all, they are still operating without shelter.

It has been observed by others, that lack of capital is one of the main constraint in this sector. Lack of capital was reported 74.36 per cent as the main reason inhibiting expansion. This is further evidenced by the fact that all respondents would like to expand their businesses. 'Other factors' constituted 19.23 per cent while lack of space comprised 3.85 per cent. Lack of licence was not an important consideration in this case. It was cited by a meagre 1.23 per cent. This complements the fact that most of the informal sector activities are non-legal. So why worry about legality in the context of expansion?

Virtually everybody would say that they will not mind more money being provided for free. To evaluate the seriousness of the lack of capital, we sought to know how many respondents had tried to borrow money and failed to get it. Out of the entire sample, only 17.46 per cent had tried to borrow and failed while 77.78 per cent had never tried to borrow money. It is reiterated that lack of know how, credit worthiness and fear of business failure and hence loss of mortgaged property tend to repel most respondents. To have a feel of sectors

perception and their approach towards credit, let us look at the sources they had tried to get credit from.

Table 3.7

Institutions where credit was sought

Institution	Number	Percentage
Friends	3	25.00
Relatives	3	25.00
Banks	3	25.00
Others	3	25.00

N = 12

All institutions are equally represented. The component of "others" may entail non-banking financial institutions and producer co-operatives. Of the reasons cited as inhibiting the provision of funds, lack of security (62.50 per cent) was the most prominent while "others" accounted for 37.50 per cent. This may be due to lack of trust or failure to repay some earlier credits advanced by relatives and/or friends. In short they are not creditworthy. What is amazing though not unexpected is the revelation that 88.89 per cent of all respondents would want more money if funds were available. But what would they do with the money? 41.07 per cent did not or had "other reasons" outside the directly contributive considerations. 42.86 per cent underlined the need to acquire more tools and equipment and for building better places of work. 14.29 per cent of those wanting more funds underscored the need for training with only 17.79 per cent wanting to hire more labour.

While need for more funds is self-evident, 62.5 per cent had no idea of where to get the money from. Of course most of them needed more money if provided freely simply because no one dislikes free things. Note once again that most of our respondents seemed to be scared of loans because, of those who revealed that they had never sought a loan, 51.79 per cent had security in the form of land. (We do not know whether they were the holders of the title deeds). Others (7.14 per cent) had tools as security and still others (1.79 per cent) had

buildings as security. 3.57 per cent had "other" securities, which may, for example, be livestock while 35.71 per cent did not have any type of security. All in all, the non-loanseekers seem to have some forms of security.

As far as harassment by either local or central government is concerned, central government's harassment is relatively unknown. Thus only 4.76 per cent reported it. However, local government was reported by 34.92 per cent which is not high. It seems, as already noted, the earlier harassments which were aimed at discouraging the growth of the informal sector is no longer widespread. In a positive light, this might suggest a realization that the informal sector activities play an important role in generating both income and employment and that the sector is here to stay. In a negative light the reduced harassment might suggest that the local government had not been vigilant in enforcing acquisition of licences. (Recall that 63.33 per cent of the respondents operated without any licence).

As expected none of the respondents operated without a host of problems. Lack of capital, headed the list with 36.36 per cent while City Council oriented problems (e.g. harassment) came in last with 4.13 per cent. Lack of facilities/inputs/tools was also an important problem comprising 17.36 per cent. Still, the informal sector operators seem on the whole to be an optimistic lot.

Thus, even with the foregoing limitations, most respondents had no complaints about the business. In fact only 3.17 per cent reported that business was poor. 23.80 per cent felt that business was doing well while 73.01 per cent claimed that it was moderate. With 96.81 per cent reporting that the business was at least fair, the plausible expectation is the continued growth of this sector. Comment on the nature of this growth is reserved until later.

building as security. 3.21 per cent had "other" security, which might, for example, be livestock which could not have any type of security. All in all, the two management sectors have some form of security.

As far as management by either local or central government is concerned, central government's management is relatively unknown. Thus only 4.5 per cent reported it. However, local government was reported by 34.02 per cent which is not high. It seems as already noted, the earlier management which were aimed at discouraging the growth of the informal sector is no longer widespread in a positive light. This might suggest a realization that the informal sector activities play an important role in generating both income and employment, and that the sector has to stay in a negative light the reduced management might suggest that the local government had not been vigilant in monitoring acquisition of licenses. (Recall that 63.33 per cent of the 200 students operated without any license).

As expected, one of the respondents reported without a host of problems, lack of capital headed the list with 36.36 per cent while City Council ordered problems (e.g. harassment) came in last with 4.13 per cent. Lack of facilities/problems was also an important problem comprising 17.36 per cent. Still, the informal sector operators seem on the whole to be in optimistic for the future. Thus, even with the foregoing limitations, most respondents had no complaints about the business in fact only 5.17 per cent reported that business was poor. 28.80 per cent felt that business was doing well while 73.04 per cent claimed that it was moderate. With 96.81 per cent reporting that the business was at least fair, the optimistic expectation is the continued growth of this sector. Comment on the nature of this growth is reserved until later.

As far as the respondents' perception of the future of the informal sector is concerned, 67.11 per cent expected it to continue to grow, 14.14 per cent expected it to remain the same, and 18.75 per cent expected it to decline. This is a very optimistic view of the future of the informal sector, especially in view of the fact that the respondents were not aware of the government's policy towards the informal sector. It is also worth noting that the respondents who expected the informal sector to continue to grow were mostly those who were operating without a license.

Chapter Four

Sample Survey: Education and Training

Business Owners

While 38.89 per cent of the owners had some years of formal education, 82.14 per cent claimed that they stopped formal school because of lack of school fees while the rest (10 out of 56) claimed other reasons. These "other" reasons most probable included being expelled from school. Only two out of 56 who had formal education reported failure in examination as the reason behind their stopping formal schooling.

Of the 63 respondents, 38 i.e. 60.32 per cent, reported that they had some "other training" i.e. other than the formal education. Of these, 44.74 per cent were trained by acquaintances while friends turned out 31.58 per cent. Relatives trained 15.78 per cent. This would suggest that the decision to have "some training" was reached by personal evaluation of the benefits resulting from the training, again an individualistic orientation. However, note that while they were undergoing the training, 84.21 per cent received some benefits. The distribution of types of benefits received is presented in *table 4.1*.

The fact that some benefits were accorded shows that some humanitarian considerations were extended to them. However, if education or training increases one's probability of getting a job not to mention raising of both his private and social capital, and to the extent that capital has a cost (fees) leave alone the opportunity cost, it would appear that for these people to receive some benefits while under training, they must have been contributing positively towards the output of the firm. We are therefore not looking at altruism.

Table 4.1

Types of benefits provided to trainees

Benefit	Number	Percentage
Food and Pocket Money	15	41.67
Tools and Equipments	4	11.11
Shelter	8	22.22
Introduction to Possible Employers	0	0
Introduction to Financiers	0	0
Others	9	25.00

The Business Owners and their Trainees

Of the 63 entrepreneurs, only 20 did not have any trainees. Of the remaining 43, 10 had one trainee while 33 had more than one trainee. Here we re-emphasize that the sample was deliberately waived in favour of those with trainees since this was our principal concern. Thus in the baseline survey, fewer business owners had claimed to have trainees (Table 2.4). Table 4.2 summarises the information on duration of training, according to business owners.

Table 4.2

Duration of training

Number of Months	Respondents	Percentage
Under Six Months	6	13.95
6 to 12 Months	15	34.86
Over 12 Months	22	51.16
No Trainees	20	

N = 63

According to the business owners, most trainees take a fairly long time to pick some basic skills. In some cases like *jiko*-making, the trainee would be fully conversant with the trade if he takes one year to train.

Note further that 58.14 per cent of these trainees, again according to the business owners, did not pay for the training. This supports our earlier view that the trainees must of necessity be contributing, however little, towards the output of the enterprise. The number and the range of amounts paid is presented in *Table 4.3*.

Table 4.3

Amounts paid for training in Kshs.

Amount	Respondents	Percentage
No Charge	25	58.14
1 - 500	3	6.98
500 - 1, 000	9	20 . 93
1,000 - 2,000	5	11.63
Over 2,000	1	2.33
No Trainees	20	

N = 63

From *Table 4.3*, we find that of those who pay the biggest percentage, pay Kshs. 501 to 1,000. This is not large compared say, to school fees in formal secondary schools when we recall that on average the training lasts for more than one year. However, it is surprising to note that of those who paid, 33.33 per cent paid in lumpsum while 27.78 per cent paid in two instalments and a similar percentage paid in three to five instalments. We would not expect these trainees to be fully conversant with minor gains resulting from holding back payment such that one enjoys the income resulting from interest earned if the money is held in a financial institution. Neither would we expect them to hold money as a consumption good. The mode of payment might then mean that the trainees come from very poor backgrounds so that most cannot

afford lumpsum payment. Obviously the trainers appreciate this fact. In this connection, note that training is generally conducted by the owner (75.95 per cent) while training by other fundis constituted 22.22 per cent. Accepting the above combination of data means that the trainees are perhaps less exploited than generally assumed (*Table 4.4*).

Table 4.4

Selection criteria for trainees

Criteria	* Response	Percentage
Anybody who comes	31	36.90
Anybody who can afford Fees	8	9.52
Friends only	21	25.00
Relatives	24	28.52
Others	0	0

**Adds to more than 63 due to multiple responses*

While it is difficult to interpret *Table 4.4*, it appears to reflect a curious mixture of philanthropy, clanism, friendship and business considerations. More than any other information so far analysed, *Table 4.4* is mostly representative of the social behaviour of the informal sector.

A bit of the above behaviour is also reflected by the data on ex-trainees. Of all the 43 enterprises with trainees, 76.74 per cent knew the destiny of their former trainees. However, only 39.13 per cent provided employment with 45.65 per cent leaving them to their own wits. After the training, some leave immediately while others take some time in the workshop. All this, again, illustrates a curious mixture of attitudes, behaviour and emotions.

Table 4.5

Length of stay after completion of the training

Duration	Responses	Percentage
Leave Immediately	24	55.82
Under 6 Months	6	13.95
6-12 Months	11	25.58
12-18 Months	1	2.33
Over 18 Months	1	2.33

N = 43

What do trainees do during their time of stay after training?

During their time of stay, 84.2% helped with some work while 15.29 per cent spent their time looking for employment. In other words, they viewed the workshops of their former masters as viable spring boards into the job market; an attitude which is perhaps more social than economic.

An important aspect was the contention of the interviewees on training needs of their industry. This is summarised in Table 4.6.

Table 4.6.

Training requirements

Response	Owners	%	Workers	%
Yes	30	47.62	17	26.98
No	28	44.44	16	25.40
Don't Know	5	7.94	30	48.62

N = 63

While most owners (47.62 per cent) contended that they needed some training, only 26.98 per cent reported that their workers required some more training. This supports the earlier view that most of the hired labour is skilled. (We return to the issue of skills later). The fact that 30 entrepreneurs did not know whether their employees needed more training implies that either the entrepreneurs were indifferent as regards the employees services or they could not judge for other people. The latter interpretation is much more likely to the extent that they had the powers to hire and fire, and if they were not happy with the services of the employees, they would have fired them. This line of reasoning seems to rule out any possibility of indifference.

Of those who thought they needed training, 68.57 per cent pointed out that they wanted to acquire more technical skills while 14.28 per cent wanted to raise their levels of general education. 17.4 per cent had other considerations most likely prestige. But where would they go for training?

Out of the 63 respondents, 31 said that they did not know where they could go or send their employees for training. On the other hand, 23 knew of such training institutions while nine withheld their views. Of those who knew of training institutions, 47.83 per cent claimed that they knew of formal government institutions while 30.43 per cent mentioned voluntary organisations. Private commercial institutions were mentioned by only 13.04 per cent.

There was, however, a consensus that there should be such a place i.e. there should be a training institution. This was significant in view of the problematic nature of this research. On whether respondents had heard about Undugu Society of Kenya, 66.67 per cent reported to have heard about the Society, while 26.98 per cent had not. There was a further 6.35 per cent who did not respond. The majority of those who knew of its existence did so from friends and fellow workers.

Thus 16.57 per cent reported having heard of Undugu Society from Undugu trainees while Undugu personnel had made the Society known to 14.18 per cent. Personal observation constituted the remaining 30.85 per cent. Of these, (those who knew of Undugu), only 47.61 per cent knew what the Society does. Note here that

answers were not homogeneous. *Table 4.7* presents the varying perceptions.

Table 4.7

Functions of Undugu Society of Kenya

Function	Response	Percentage
Train Parking Boys/Girls	2	10
Train People like Myself	17	85
Others	1	5

N = 20

From *Table 4.7* note that the majority of the respondents (85 per cent) knew that the Society provided training. However, none had ever approached the Society. This may be due to lack of information or due to ignorance.

The Trainees

Social Background

Since this study is centred on the trainees and especially how they relate to the business owners and the enterprise, attention is now focused on them. However before we proceed with the analysis, it is important to re-emphasise that, of necessity and almost by definition, the trainee has little, if any, claim on the business. Therefore the trainee cannot be expected to intelligently discuss his trainer's business aspects. For this reason, this section deals mainly with the social-economic profiles of the trainees and the training process; the business aspects and the owners backgrounds having been discussed in earlier chapters.

Of the 57 trainees who were interviewed, it turned out that all of them were male, and were distributed between metal-work and carpentry in the ratio of 27:30. 49 out of 57 were single (85.96 per cent) which means that they were generally young. In fact the 27 who were in metal-work had a mean age of 22.04 years compared with

20.37 years for the 30 in carpentry. The metal-work trainees had on average resided in Nairobi for 3.95 years, while those in carpentry had on average resided in Nairobi for 4.96 years. Thus it appears that it takes longer for a trainee to enter carpentry apprenticeship by at least one year compared to metal-work. On the other hand, it could be that metal-work apprentices stay just a little longer in the formal school system thus delaying their departure for Nairobi by that long. This hypothesis finds some credence when observed that trainees in metal-work are not only older as observed, but levels of education stood at 7.63 years and 6.40 years for metal-work and carpentry respectively.

Only eight of the trainees were married, and all of them had one wife. Four out of the eight had one-two children with only one respondent having over four children. Of the entire sample (i.e. of trainees), 56.14 per cent had no other dependants while 17.54 per cent had one-two dependants. A similar percentage did not respond to the question. Only 8.77 per cent reported having more than two dependants though not exceeding five. This supports our earlier observation that trainees are on average given some kind of 'payment' in recognition of what they produce in the course of their training. Most of the assistance is related to provision of food and clothing, no doubt for themselves and the dependants.

Of all the trainees, 94.74 per cent were migrants and 70.18 per cent had stayed in Nairobi for periods ranging from zero to five years. 14.04 per cent had stayed for over twelve years while 8.77 per cent had been there for periods ranging from six to nine years. A further look at their educational background reveals that 92.98 per cent had some formal education as evidenced by the mean number of formal education years reported above. This seems to be in line with the migration theorists who argue that in most cases the migrants are the educated who of necessity have a higher probability of acquiring a formal sector job.

Of those who had some formal education, 61.40 per cent terminated their studies because of lack of school fees while 15.79 per cent failed exams. A similar percentage claimed that they left school because of "other" reasons. Some no doubt overgrew the school-going age or they were generally naughty in school, all culminating in their expulsion from school. Alternatively they could have been compelled to leave school by hunger for money. Most of the respondents had not

worked anywhere since leaving school (i.e. 68.42 per cent) while 14.03 per cent had just worked for 0-6 months. Six months-to-one year and over one year constituted 8.77 per cent each. Like their masters, our trainees resided mostly in low-income areas. Thus 45.61 resided in slums, 52.63 resided in low-income areas while 1.75 claimed to reside in middle-income areas. In spite of the figures it was obvious from conversations that most of the trainees resided in slum areas.

The Training Process

The average number of trainees per enterprise for the sample was 1.43 compared to 1.50 for metal-work and 1.35 for carpentry. Thus, once again, note that metal-work tends to train more. We might also add here that the employment figure for the sample was 1.85 persons per enterprise while similar calculations yielded 2.05 and 1.66 per enterprise for metal-work and carpentry respectively. Thus metal-work not only trains more as the universe showed but now tends to employ more unlike the data from the universe.

Acceptance of this data has important policy implications in as far as where the investors, whether government or otherwise, should perhaps put their efforts. An employment difference of 0.39 persons per enterprise is no small difference as is argued later.

The majority i.e. 92.98 per cent of the trainees had not received any other training. Of the 7.02 per cent who had some other training, 67.67 claimed that they had received it in the informal sector while 32.33 per cent acquired it from other places. All of them, i.e. the 32.33 per cent, happened to have been paying for their training. However, the 67.67 per cent who had received their "other training" from the informal sector claimed to have paid nothing more than Kshs. 500 while the remaining 32.33 per cent, who had acquired "other training" outside the informal sector paid in excess of Kshs.1,000. This fellow, for it is only one fellow, is likely to have been in a village polytechnic and may be failed his formal certification exams.

As should be expected, 96.49 per cent attended the training full-time and the remaining 3.5 per cent claimed that they were working elsewhere in addition to training. Thus, training is taken quite seriously by these trainees. We noted further that 59.64 per cent viewed

themselves as "new" trainees while 40.35 per cent viewed themselves as "old" trainees. However, as indicated earlier, this supposed distinction proved of dubious value. Of more importance is the question of what the trainees were doing prior to starting their training. Table 4.8 summarises this information.

Table 4.8

Pre-Training occupation

Occupation	Frequency	Percentage
In School	14	24.56
Unemployed	16	28.07
Employed	12	21.05
Self-employed	3	5.26
Others	12	21.05

Other than for those who were self-employed, the rest were more or less normally distributed. We may note that those who claimed that they were doing "other" things are likely to have been conducting illicit trades or were unemployed and actively looking for employment.

We further note 17.85 per cent started training to acquire skills while 16.07 per cent did so to improve incomes. Another 21.82 per cent had to start training because of lack of employment. The remaining 44.64 per cent had other considerations which are likely to be the ambition of being self-employed and/or owning a business.

As for the training percentage, 56 out of 57 were being trained in one enterprise while the remaining one was being trained in another place. In introducing the trainees to the trainers, relatives and friends played equal roles of 30.91 per cent each. Trainees who chose the trainer because of geographical proximity constituted 14.54 per cent while the component of "others" had 23.63 per cent. Those are likely to be acquaintances.

As regards payment for training, 50.87 per cent claimed that they were paying; quite legitimate because there is no capital without a cost. Of the 28 who did not pay, 16 were paid while 12 were not or did not give an answer. Of those who were not paid (35), 29 would like to be paid while six would not like to; quite a curious lot these six.

In this respect, trainees in metal-work on average paid slightly more (Kshs. 773.30) than those in carpentry who actually paid shs. 712.15 on average. In addition, the hourly rate would be far much lower in carpentry because they trained for 54.31 man-hours per week as opposed to 53.33 man-hours per week in metal-work. Thus, this is one of the few aspects where carpentry has an advantage over metal-work in terms of investment policies. This advantage, is however counterbalanced by the fact that trainees in metal-work had trained for more years (1.69 years on average) thus presumably acquiring more skills and compensating for the shorter training hours. On average trainees in carpentry had trained for 1.31 years.

On the terms of payment, 41.37 per cent paid in cash instalments while 41.37 per cent used other forms of payment. This is fairly similar to information from the trainers. Of the paying subset, 82.76 per cent got money from relatives while none got from friends. Only 3.45 per cent relied on savings which is not surprising for trainees. 13.79 per cent did not specify how they got the fee. It may be they obtained it by doing odd jobs while not in training. Trainees rarely own tools and only 5.21 per cent claimed to own some tools. Thus 33.33 per cent got them from relatives, or savings or other methods.

The decision to train, it turns out, was not a wholly independent decision. Thus 42.11 per cent of the respondents were influenced by their friends and relatives. It was evident that most of the respondents were not interviewed before being admitted. Only 16.66 per cent of the respondents were interviewed.

To the extent that most of the trainees were not interviewed then, how and why did they chose the particular training? A fairly large of them were bulldozed by relatives, it seems to the extent of 32.35 per cent while 41.7 per cent had other considerations e.g. being close to his residential area or having known some people the trainer had trained. Those who were introduced by friends comprised 11.76 per cent while self-introduction accounted for 14.70 per cent. Again a curious

combination of circumstances and attitudes similar to the training process of the owners.

Most trainees (36.84 per cent) were being trained by their relatives while those trained by acquaintances accounted for 33.33 per cent. 29.82 per cent were being trained by friends. In any case 80.70 of the trainees were being trained by the owner. It is evident from these figures that training is more or less conducted by people with prior knowledge of one another i.e. it is highly unlikely that a potential trainee will come from the blues and settle on any workshop he finds. Thus the data suggests existence of some form of social network and this may well explain the low percentage of the number of people interviewed before training commences. In any case, why interview a friend or a relative when you own the business? Training conducted by combined efforts of the owner and the trainee and by other *Fundis* categories comprises 7.02 per cent each while "learn-by-myself" raised 5.26 per cent. This suggests good quality training.

One expected the rational finding that a large percentage of the trainees (98.25 per cent) expected benefits during and at the end of the training period. This expectation is fulfilled. Thus 77.73 per cent received benefits while undergoing the training reflecting either a positive marginal product of labour on the trainee's part, the owner's personal relationship or a philanthropic attitude. Most of them received at least food and pocket money. However, 59.65 per cent of the trainees noted that they expected some more benefits at the end of the training. For instance, introduction to financier, introduction to possible employers etc.

It was pointed out earlier that some of the trainees are expected to have been influenced by others who have received similar training. This view is lent some weight by the fact that 49.12 per cent of our respondents know of some other people who had received similar training. The trainees went on to note that 57.14 per cent of those they knew were employed. This observation, apart from strengthening the social network notion, no doubt also explains the decision to train. They also pointed out that 32.14 per cent of those they knew as having been trained were self-employed. This implies that 89.28 per cent of those known to have been trained were employed in one way or the other. The decision to train is therefore a worthy course, at least to a rational calculator.

As for the contents of the training, 92.86 per cent felt that the training was adequate. However this observation needs to be heavily qualified with the additional observation, from the data, that only 14.04 per cent knew of other training institutions. Thus we cannot rule out an element of ignorance. Of those who felt that training was not adequate, some knew of other training institutions. Of these, government training institutions were the most renowned accounting for 62.50 per cent of the known institutions. Voluntary organisations claimed a 25.00 percentage, while private sector attracted 12.50 per cent.

Of the 49 who did not know of any other training institution, 42 felt that there should be such institutions, which is in line, especially if they feel that the training they are already getting is adequate and beneficial. Not surprising then, out of the entire sample (57) 42 respondents were of the opinion that the training was adequate. Further more, 52 of them felt that they trained for enough number of hours.

We earlier referred to the prestige of owning a business. Of all our trainees, 59.65 per cent wanted to be self-employed (and of course own the business) after completing their training, while 35.08 per cent wanted to seek employment. However, 59.65 per cent wanted to stay in Nairobi, while 29.82 per cent wanted to go elsewhere. The large percentage of those who wanted to stay in Nairobi is disturbing at least from the point of view of rapid urbanization. There was another 10.53 per cent who did not know which way to go.

How about improving the training?

Of the 57 trainee respondents, 24 felt that there was need for improvement in training and the area which required more emphasis was technical training. This was reported by 75 per cent. Less fee was cited by 4.17 per cent while shorter hours was cited by none. "Other" aspects of the training constituted 20.83 per cent. These could have entailed longer working hours while improvement on the knowledge of the trainer or type and place of training could as well form a part of this. Only one respondent mentioned "more theory" as a possible area of improvement. Here we should quickly add that a distinction should have been made between more theory on purely social sciences and more theory in technically oriented subjects. It should not be surprising if most respondents thought of the former in answering the question. We note further that technical training is not tantamount to practical

training though naturally going hand in hand. This aspect too should have been made clearer in the questionnaire.

Apart from the trainer, some respondents (37) received some assistance from other categories of the society. Relatives provided 89.19 per cent of the assistance while 5.41 per cent received some assistance from voluntary organisations. The rest noted friends and "others" in the same proportions. Young as the respondents were 43.86 per cent were the only ones who had heard about Undugu Society of Kenya, and of these, 68 per cent had heard of the society from "other" sources (mostly personal observation). Undugu personnel and fellow trainees constituted 12 per cent of the sources each. Undugu trainees conveyed the knowledge to 8.00 per cent. Of even more disturbing implications is that of those who knew of Undugu's existence, only 44.00 per cent claimed to know what the Society does. Of these ones who knew, 63.64 per cent reported that it trained people like themselves while 27.27 per cent sought cover in "others". 9.09 per cent alleged that it trained parking boys and girls. Altogether, a not too inaccurate perception of Undugu.

One of the fundamental questions was whether if the trainee was offered theory lessons he would go. Keeping our earlier reservations on the questioner in mind, (on the meaning of theory) 71.93 per cent underscored the need to go for theory classes while 22.81 per cent said that they would not. Another 5.26 per cent did not know what to reply. Of those who would attend such classes, most would do so to improve their knowledge i.e. 86.05 per cent, while only 2.33 per cent (one person) said that he would do so to improve his income. 6.98 per cent had other motives. It is reiterated that the notion of theory classes need to be elaborated and especially expounded on the relationship between theory and its practicability. Thus relevance of theory to practical training, say in wood-work or carpentry need to be explained very carefully, both by the researchers and by the trainers.

Self-evidently, it would be nonsensical for trainees to attend theory classes (as they did during formal schooling) which do not in any measurable (both quantitatively and qualitatively) increase ability to grasp the contents of training quickly and successfully. In other words, it is prevalent that the work of Undugu Society of Kenya should be comprehended and its relationship and relevance to training made known before indulging in the question of how theory would be

received. In short, the Society has a role to play but before the trainees indicate their preference, the type of theory classes offered need be known. This is the necessary and sufficient condition if one is to get a non-illusive answer. The contents and context of the theory classes offered by Undugu Society must as a matter of urgency be better publicised.

Chapter Five

Education, Training and Welfare

Introduction

The last four chapters discussed the general characteristics of the metal-work and carpentry sub-sectors. The discussion included largely descriptive data on such issues as locational distribution of enterprises and personnel engagement including the incidence of training. Also presented were data on business environments and practices. Finally data on the training process was analysed; data which includes such issues as the educational background of business owners, and their views on trainees, the social background of trainees, and the views of trainees on the training process itself. Hopefully the data so far presented has begun to shed some light on the whole question of welfare in the informal sector and how such welfare can be related to skills acquisition.

However, it should be evident by now that matters so far touched upon, especially with reference to the last question, are mainly descriptive as stated earlier. In other words, so far, no attempt has been made to find out how some of the issues are related, either in the statistical sense or in a theoretical sense, both of which are ways of searching for explanations. Consequently now, let's look at some of the main issues raised with the intention of exploring how some of them are related, how strongly they are related, and if indeed they are so related. In so doing, a series of regression equations and correlation analysis are utilised.

In the case of owners of enterprises, relevant issues are explored utilising four main equations. These equations will first be presented and analysed focusing specifically on the two sub-sectors, metal-work and carpentry.

In the case of trainees, there are also four equations. Two of the equations relate to all the trainees while each one of the remaining two relates to metal-work and carpentry. In this respect, it is expected that the factors effecting the training process in the two sub-sectors will

basically be the same as suggested by the survey data. Therefore more equations, leading to multiplicity of functional relationships, were not considered necessary. Most of the equations, both for owners and trainees were run several times, with the intention of refining the specifications each time, but of course with practical limits as to how many times one can try to re-refine a model. Before getting to the equations, however, a recapitulation of a few of the descriptive statistics, some of which form important variables in the functional estimations is necessary. Here, mainly the business owners are discussed since the statistics on the trainees were presented in chapter four.

Some Variable Recapitulation - Business Owners

Looking at age, the mean age for the entire sample was 34.86 years. This is to be compared with the mean age of 33.87 years and 35.87 years for metal-work and carpentry respectively. Thus, carpentry has a higher proportion of slightly older fellows. How about experience or years of operation? The mean experience or years of operation, for the sample was 7.28 years. This mean was somewhat raised upwards by metal-work, whose mean years of experience stood at 7.62 years compared to carpentry at 6.94 years. Levels of education were somewhat similar in the two sub-sectors. Thus, the observed means were 6.40 years; 6.34 years and 6.45 years for the entire sample, metal-work and carpentry respectively. Though carpentry is slightly better off than metal-work, we are still looking at primary school entrepreneurs.

Other than formal education, there was the variable "other education". As already pointed out, 40 per cent of the sample had 'other' training. Within the sub-sectors, 41 per cent in metal-work and 39 per cent of carpentry had "other training" outside formal education. From the statistics, a variable called "skilled labour" which is defined later within the equations was created. For the entire sample, the mean skilled-labour component was 1.55 persons per enterprise, compared with 1.67 persons for metal-work and 1.44 persons for carpentry. Thus, metal-work registered an advantage with respect to skilled labour, a fact which may, or may not have major consequences.

From eye-ball econometrics, it is expected that emerging labour differences have telling impacts in the welfare analysis of the two sub-sectors. In this respect note that man-hours worked per week is evidently higher in the informal sector than in the formal sector. Thus the mean number in both carpentry and metal-work stands at 57.07 per week. Metal-work which has shown high labour requirements both for gross and skilled-labour had a mean value of 55.83 hours while carpentry worked longer hours (58.25) may be to compensate for the low labour component.

The expected revenue component was Kshs. 8630.78 while the off-setting expenditure figure was Kshs. 5834.09 yielding a mean economic rent of Kshs. 2796.69. The respective economic rents stood at Kshs. 3189.60 and Kshs. 2391.00 in metal-work and carpentry sub-sectors. Economic rent is not very crucial in welfare analysis even though it tells us something about the misallocation of resources. We need therefore to examine per capita incomes in order to make any conclusive statements.

The gross per capita income per month for the sample stood at Kshs. 4529.13 for the composite labour which includes skilled and unskilled labour while the corresponding figure for the "skilled" labour was Kshs. 5383.63. Evidently, though without any statistical test, skilled labour earns a higher per capita income. If more is preferred to less, and with more income leading to increased welfare, it is obvious that acquisition of skills from training would be a worthwhile investment.

As regards the two sub-sectors, it was found that the per capita income relating to metal-work in the broader labour definition (both skilled and unskilled) was Kshs. 4522.90 which was lower than the carpentry counter-part of Kshs. 4809.26. However, the concern has been in training and it has been maintained all along that carpentry is more skill-specific. We need therefore to examine the per capita income related to skilled labour in metal-work and carpentry.

The figures are not different in that they stood at Kshs. 5542.42 and Kshs. 5541.68 in metal-work and carpentry. Thus, though carpentry may be more skill-specific, it does not mean that the per capita income is higher. The above figures suggest that skills are important in both sectors. It therefore appears that with a pure market

for labour in this sector, labour is paid the value of its marginal product which would then further suggest that the marginal product of labour is a function of skills. Certainly, from the per capita incomes relating to the broader labour (both skilled and unskilled), we can conclude that carpentry is more skill-specific and that is why there is not a greater divergency between the two per capita incomes. It is therefore eminent that returns to skill are high but more or less equal in the two sub-sectors. In other words, training (skill) leads to higher incomes regardless of the sub-sector. Thus welfare would be augmented by increased training.

Lets now try to test some of the above ideas statistically, using some of the variables presented above.

Functional Relationships - Business Owners

In classical economics, output is a function of capital and labour. The only thing we do not know therefore, is how they exactly relate. We can intuitively say that the relationship is purely *non-leontieff* though there are some limiting factors.

We are going to use the value of inputs purchased in a year as our proxy for capital; after all supply (output), is nothing more than the marginal cost curve above the lowest point of the average cost curve. This is a plausible approach when we note that the much talked about ease of entry and competition in the informal sector imply that for the firms to survive, they must be operating at the lowest points of their average cost curves. Let us note here that skill in labour can result from training prior to joining the industry or can be acquired while in the industry through apprenticeship or the process of learning by doing. However acquired, we define "skilled-labour" as any relevant knowledge acquired after formal schooling. This variable was tapped by the questionnaire. In this regard, we would like to know which type of labour best complements capital to yield the best relationship with output. In other words, what type of labour would explain the output - capital ratio in the most satisfactory manner. Thus:

$$X_9 = 1033.1718 + 591.6205 X_6 + 1.1655X_{10} \quad (1)$$

(1.680) (10.528)

$$R^2 = 0.67$$

$$DF = 60$$

$$X_9 = 526.5111 + 1608.5769X_7 + 1.1440X_{10} \quad (2)$$

(3.786) (11.303)

$$R^2 = 0.72$$

$$DF = 60$$

The values in the parenthesis are t - values

X_6 : Total employment i.e. skilled plus unskilled labour
(composite labour)

X_7 : Skilled labour

X_9 : Income in Kshs.

X_{10} : Capital in Kshs.

DF: Degrees of freedom

NB: All variables will be defined as above unless otherwise stated and further that all the statistical tests will be carried out at 95 per cent level of significance.

In equation (1), labour is not statistically different from zero when it comes to generation of income. The only variable worth recognition is the capital component which is statistically significant with the value of t-statistic equalling 10.528. However, one remarkable achievement is that our regression line explains the variations upto 67 per cent which is quite good. When we examine equation 2, we notice that labour becomes statistically significant while capital retains its significance. The variation explained also goes up to 72 per cent. We can therefore safely conclude that *output is best explained by skilled labour and capital.*

Analogously, there is some disguised unemployment in the first case. We can thus say that skill is an important component in determining levels of output in the informal sector. Subsequently, people should acquire more skills but whether they should acquire them from within or from without the informal sector is a different question altogether. All the same, it would therefore appear that training, and consequently acquisition of skills, is important in enhancing total welfare, if we assume that increased output leads to increased incomes and hence to increased welfare. This is not too unreasonable an assumption.

It is generally felt that all sectors are not homogeneous. Taking this as a hypothesis, we re-examine these equations with respect to both metal-work and carpentry. In so doing we want to ascertain which of the two sub-sectors is more skill-specific. It was hypothesised earlier that carpentry is skill-specific. To test this hypothesis, we have sought the services of two equations but this time, they relate to metal-work (equations 1 (b) and 2 (b)) and carpentry (equations 1 (c) and 2 (c)) sub-sectors.

$$X_9 = 854.1146 + 884.2788X_6 + 1.1432X_{10} \quad 1(b)$$

(1.655) (7.011)

$$R^2 = 0.66$$

$$DF = 29$$

$$X_9 = 114.4455 + 2430.7306X_7 + 1.0810X_{10} \quad 2(b)$$

(3.886) (7.747)

$$R^2 = 0.72$$

$$X_9 = 1300.1072 - 111.4189X_6 + 1.2162X_{10} \quad 1(c)$$

(-0.248) (8.476)

$$R^2 = 0.72$$

DF = 28

$$X_9 = 985.0065 + 336.3457X_7 + 1.2093X_{10} \quad 2(c)$$

(6.440) (8.606)

$R^2 = 0.73$

DF = 28

As regards the composite labour i.e. equation 1(b), notice that the parameter estimate is positive though statistically insignificant while capital is significant. The variation explained falls marginally ($R^2 = 0.66$) from the one observed for the entire sample. However when we consider the same equation but now for the carpentry sub-sector (1(c)), the sign of the parameter estimate for the gross labour component changes from positive to negative even though statistically insignificant i.e. the marginal impact of extra labour on output is negative which may be a situation where two people are forced to use one handsaw at the same time. Recall that carpentry does not as readily welcome trainees perhaps because of their impact (adverse) on output i.e. they are not likely to lead to any increased incomes because wood-work is rather precise and hence skill-specific.

An evaluation of equations 2(b) and 2 (c) supports the above observation. For metal-work, the two variables become statistically significant and the variation explained rockets upto 76 per cent. This means that, one, our modern specification is alright and two, *that the role of skilled labour is equally eminent. Thus a manhours of unskilled labour*. We however note that a unit increase in output requires 2431 skilled workers or 1.08 units of capital. Given the relatively high price of skilled labour, this situation suggests that capital might be cheaper to acquire than labour (an issue discussed shortly). In carpentry on the other hand, the skilled-labour component takes the expected sign (positive) and the parameter estimate becomes significant in explaining output levels. *Income increases with increases in skilled-labour*. More specifically, a unit increase in this sector would call for 336 number of skilled artisans or 1.21 units of capital. Thus on the outset, it would appear that this sector is capital augmenting compared to metal-work. Yet when we consider labour requirements, metal-work uses labour more extensively.

Given these revelations, it is obvious that there is an urgent need for skills in the sectors studied because they lead to increased welfare. Education in training is a necessary pre-requisite for raising the standards of living of this sector. This is not without a cost but the cost of such training is the sum of both the opportunity cost of the resources used in training together with the opportunity cost of the foregone production by the recipients of the training. Note however that such costs are likely to be very low because some of the people to be trained lead to negative marginal products of labour, while cost of other resources would be very low is the approach adopted for the training similar to the type administered by the Undugu Society of Kenya whereby training is undertaken in the already existing institutions of the informal sector.

To have a feel of the effect of "other training" i.e. prior to joining the industry, we incorporated the data in our regression analysis and the following equation (3) and the sub-sectoral equations 3(b) and 3(c) were run.

$$X_9 = 1434.66 - 1388.09X_4 + 679.09X_6 + 1.17X_{10} \quad 3$$

(-1.18) (1.89) (10.60)

$$R^2 = 0.68$$

$$DF = 59$$

$$X_9 = 960.39 - 364.06X_4 + 895.13X_6 + 1.15X_{10} \quad 3(b)$$

(-.17) (1.64) (6.85)

$$R^2 = 0.67$$

$$DF = 28$$

$$X_9 = 1881.40 - 1868.32X_4 + 150.52X_6 + 1.19X_{10} \quad 3(c)$$

(-1.66) (0.33) (8.53)

$R^2 = 0.75$

DF = 27

X_4 : Other training i.e. *other than from formal system, prior to joining the industry.*

For the entire sample, note that it is just the *capital component that is significant* even though the variations explained improved marginally i.e. from $R^2 = 0.67$ to $R^2 = 0.68$. One unexpected outcome is that the parameter estimate for "other training" has a *negative marginal impact* even though the statistic is not significantly different from zero. The correlation between "other training" and employment ($\sqrt{X_4 X_6} = 0.216$) might have led to the negative impact. At sub-sectoral level, we find that the metal-work equation i.e. 3(b), was not affected to any recognisable extent by the introduction of "other training" over the earlier standard equation 1(b). When this is done the variation explained increase by 1 per cent only while the parameter estimate of "other training" demonstrated a negative impact with the contribution of the variable remaining statistically insignificant. This means that higher levels of "other training" leads to lower incomes even though their contribution is not very important. Further still, it is the capital component which is crucial in determining output.

Further, still note that the marginal impacts of the capital component in 3 and 3(b) of 1.17 and 1.15 is not statistically different, which suggests that the impact of the "other training" is further confirmed in equation 3(c) where the variable still exerts a negative influence though playing a minimal role. The marginal impact of the parameter estimate of capital stands at 1.19 which is neither very different from the above noted impacts i.e. a unit change in income requires less than 1.2 unit change in capital. In this last equation, the variation explained shot up from $R^2 = 0.72$ in equation 1(c) to $R^2 = 0.75$ in equation 3(c).

We now examine equation 4 and the sub-sectoral improvements i.e. 4(b) and 4(c) for metal-work and carpentry.

$$X_9 = 1061.26 - 1783.73X_4 + 1748.32X_7 + 1.15X_{10} \quad 4$$

(-1.672) (4.096) (11.540)

$$R^2 = 0.736$$

$$DF = 59$$

$$X_9 = 336.45 - 737.30X_4 + 2459.42X_7 + 1.09X_{10} \quad 4(b)$$

(-0.395) (3.82) (7.62)

$$R^2 = 0.759$$

$$DF = 28$$

$$X_9 = 1657.54 - 2109.60X_4 + 623.17X_7 + 1.20X_{10} \quad 4(c)$$

(-1.96) (1.20) (8.94)

$$R^2 = 0.761$$

$$DF = 27$$

In this final equation (4), the variation explained goes up significantly from that of equation 2 i.e. $R^2 = 0.72$ compared to $R^2 = 0.74$. Otherwise for the subsequent equations 4(b) and 4(c), for 2(b) and 2(c), there was no remarkable change for all parameter even though it is just significant in equation 4(c). In equation 4, the *labour component is still significant together with the capital component*. In equation 4(b), the very same variables as in 2(b) are significant. The most surprising revelation is in equation 4(c); though with the highest variation explained of slightly over 76 per cent, the inclusion of other training renders the parameter estimate of skilled labour null i.e. it is not statistically different from zero. This implies multicollinearity.

The inherent multicollinearity between other training and skilled labour comes into light when the parameter estimate has a negative sign i.e. against our expectation and that it becomes significant. It is not very difficult to see the common variability when skills result from other training. We can, inspite of these econometric problems, conclude that *training is more important in carpentry than in metal-work in particular, and that it is equally important in the informal sector in general*. This confirms the earlier observation that carpentry is likely to be skill-specific.

At a macro level, and assuming that the firms in the informal sector were operating efficiently, and if we assume further that "other training" was to be acquired by releasing some personnel to attend to this training, we would have excess capacity in capital usage which would explain an adverse relationship between output and other training. But as things stand in analysis, it is the serious multicollinearity problem between "other training and employment" that brings in the observed behaviour.

Without prejudice, the conclusion is that education and training are important factors influencing the level of income. *This fact has been arrived at through an evaluation of functions relating incomes to labour in general and skilled labour in particular. The skilled labour functions have emerged as the strongest especially equation 4(c), though displaying an unexpected negative sign.*

On the understanding that welfare economics entails intra-personal comparisons and hence non-quantifiable variable(s), it is logical to argue that increased welfare results from increased output. With this realization, we can say that to the extent that training leads to acquisition of skills and with skills leading to increased output, then training implicitly leads to increased welfare. There is no direct link between training and welfare but the step-wise sequence leads to this conclusion; *whereas more training is unreservedly advocated, it is difficult to point out what specific type of training is required*. Perhaps this should form another phase of this research project.

Let us now examine the relationship between output, capital and labour in a Cobb-Douglas world. We want to try and single out the most important factor of production i.e. the one that is more crucial than others in *determining output*.

Capital-labour ratio as a function of per capita income in both cases of "total labour" and "skilled-labour" had very interesting revelations. Log 1 near functions of the general form:

$\ln(X_{10}/X_i) = f [\ln(X_9/X_i)]$ where X_i can take the values of X_6 or X_7 depending on the specification, yielded the following results:

$$\ln(X_{10}/X_6) = 1.8304 + 0.7282 \ln(X_9/X_6) \quad (5)$$

(9.882)

$$R^2 = 0.616$$

$$DF = 61$$

$$\ln(X_{10}/X_7) = 1.5516 + 0.7678 \ln(X_9/X_7) \quad (6)$$

(9.352)

$$R^2 = 0.559$$

$$DF = 61$$

Note that both per capita incomes have positive marginal contribution. Note further that elasticity of substitution between labour and capital is 73 and 77 per cent respectively i.e. a unit of output will require labour and capital to be combined in the ratio of 73;27 and 77;23 in total labour and skilled labour functions respectively. In both cases the parameter estimates of per capita income are highly significant. This finding is in line with the widely accepted view that *the informal sector is labour intensive*. This would underscore the employment potential in this sector.

As regards the magnitude of the employment potential, we need to know the composition of demand for the products produced in this sector. This is because demand for labour is derived from the demand for the product and one might find that for some income categories, changes in income lead to no significant changes in the quantity consumed or in some cases to less consumption e.g. demand for wick lamps is likely to fall with increased incomes.

When we compare the elasticities for total labour and skilled labour, we find that the elasticity is lower in the case of skilled-labour suggesting that skills *lead to more extensive use of capital. In other words there is positive correlation between skills and capital such that the more skills an individual possesses the more capital he requires.* A further conclusion would therefore be that *skilled labour is employed more intensively relative to total labour.* This is likely to explain the low average employment figure in carpentry which we earlier on argued is likely to be skill-specific.

An examination of the particular sub-sectors in connection with the above equations confirms the view that skilled labour is used *sparingly but intensively because it calls for more capital to complement it.* This realization is borne out by the extent of the single-owner single-operated businesses. The following sub-sectoral equations corresponding to metal-work and carpentry and for both total labour and skilled labour attest to the above findings.

$$\ln(X_{10}/X_6) = 1.7914 + 0.7228 \ln(X_9/X_6) \quad 5(c) \\ (6.966)$$

$$R^2 = 0.618$$

$$DF = 30$$

$$\ln(X_{10}/X_7) = 1.4046 + 0.7781 \ln(X_9/X_7) \quad 6(b)$$

$$R^2 = 0.586$$

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$$\ln(X_{10}/X_6) = 2.1027 + 0.7048 \ln(X_9/X_6) \quad 5(c) \\ (6.335)$$

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$$R^2 = 0.571$$

$$DF = 29$$

$$\ln(X_{10}/X_7) = 1.9643 + 0.7264\ln(X_9/X_7) \quad 6(c)$$

$$(6.209)$$

$$R^2 = 0.571$$

$$DF = 29$$

In metal-work, note that elasticity of substitution between labour and capital is 72.28 for total labour and 78.22 for skilled-labour which confirms the first conclusion of extensive utilization of skilled labour. The reason for this may be that capital is expensive, but given the vastness of the enterprises, skills become very crucial. In carpentry, however, the order of extensive utilization is maintained i.e. elasticity of substitution in the two categories of labour is 70.30 and 73.27 *but depicts the importance of capital in complementing labour in the latter case*. In other words, a highly qualified and experienced carpenter will not produce any furniture unless a tool-box and high class timber are available. In this respect note for instance that the relative importance of labour in the skilled-labour component declined marginally, which is understandable if we recall that this study maintains throughout that carpentry is more skill-specific.

On the basis of the foregoing, we can conclude that *increased training requires capital to complement it but less so in carpentry which is more skill-specific*. However, at macro-level, skilled labour is utilized more intensively so as to reap the economics of scale and skills. But we need to note that depending on the particular sub-sector, corresponding increases in output will be constrained to varying degrees by availability of capital and the specific skills at a given point in time. Labour — and in fact skilled labour — is the single most important factor.

Evidently labour, and in fact skilled labour, is the single most important factor of production in determining income. However, its absolute importance depends on which sub-sector one is looking at. In other words, the factor share of skilled-labour is greater than the share

accruing to total labour. To the extent that welfare is a function of consumption and consumption is a function of income, *inter alia*, we can therefore unconditionally conclude that training leads to increased welfare. Before concluding however, we return to the question of the trainees.

Functional Relationships - Trainees

We have so far discussed training and its effects on welfare. We need all the same to know what determines the urge to train i.e. are there some variables that are instrumental in leading to training? What determines the training requirements? For an answer to these questions, we examine some variables relating on the training process, but only those variables which hypothetically are expected to influence training decisions and process.

Unlike in the productive undertakings where one can talk about some decision criteria as regards investment, the decision to train does not entail such direct indicators. It will in most cases be influenced by other factors like lack of alternative employment, need to acquire skills so that one increases his mobility both vertically and may be horizontally. We must acknowledge that a host of factors which are qualitative are likely to affect the decision such that training needs are as a result of an interplay of social considerations. It would therefore be in order to try and construct a model which is rather descriptive as regards the perception of the trainees. A similar model would be able to tell us the training needs and the possible areas of curriculum development.

One important assumption is that trainees are expected to be rational i.e. for somebody to elect to be trained, he must or should examine the job market to start with, unless one is undertaking training to postpone the unemployment problem. Some trainees have found themselves in this "predicament" as a result of duress i.e. they have been compelled in most cases by their parents and/or relatives (mostly elder brothers). Under such circumstances, the respondent had little choice and did not have to be economically rational. One important aspect is that for those who decided on their own, they must have been influenced by "demonstration" considerations i.e. some people they had known and who had acquired similar training and have managed to get themselves employed.

$$R^2 = 0.571$$

$$DF = 29$$

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All in all, we would expect there to be a relationship between training and payment for the course and the expected years of training.

$$Y_5 = 0.5320 + 0.6470Y_6 - 0.0001Y_7 \quad (7)$$

(3.675) (-1.056)

$$R^2 = 0.212$$

$$DF = 54$$

Y_5 : Years of training so far completed

Y_6 : Expected years of training

Y_7 : Payment for the course in Kshs.

DF: Degrees of freedom

(The values in the parenthesis are t-values. All these variables will be defined in this way throughout this study unless otherwise specified.)

From the regression equation, the fit is very poor with an $R^2 = 0.212$ which suggests a failure by our model to capture the necessary variables that determine training. This mis-specification is perhaps the result of the fact that some social variable were not captured while the expected duration of training is an important variable in determining present level training, *the amount of fees charged is not important in determining whether to train or not; a rather surprising finding.* However, economic rationality is demonstrated by the expected negative sign of the parameter estimate for fees. *In other words, once in training, as fees increase trainees will tend to train less.* However, the marginal impact of fees is so low that the failure of the variable to be statistically significant is not worrying. Another important feature unveiled by this equation is the economics of scale resulting from large numbers. In this respect, *shorter courses are more expensive than longer ones.* This may be explained by the fact that for longer courses, one is bothered about variable costs only, while for short intermittent courses, one has to address oneself to both fixed and variable costs.

A modification of equation 7 to incorporate number of years the trainee has been a resident in Nairobi (Y_2) and his level of formal education (Y_3) marginally improved the fit. The regression result is presented in equation 8 below.

$$Y_5 = 0.7892 + 0.0397Y_2 + 0.1533Y_3 + 0.6846Y_6 - 0.0001Y_7 \quad (8)$$

(1.143) (1.987) (3.966) (-0.951)

$$R^2 = 0.278$$

$$DF = 52$$

Note that expected years of training is still an important determinant of the actual training. Further, the level of formal education is an important consideration in determining actual training. *As levels of education increase, actual training increase.* What this means is difficult to tell. Either the trainees are being "de-schooled" or they simply have a higher appreciation of training and knowledge and therefore tend to train more. All the same, this positive correlation is likely to have a relative maxima and thereafter a negative impact e.g. formal education upto the university level is not likely to lead to demand for more training in the informal sector. We, however, can not ascertain the optimal point of the positive correlation.

Number of years of residence in Nairobi displayed the expected positive association though insignificant i.e. the longer one has stayed in Nairobi the more likely one is to seek training. This is likely to support the earlier observation that training is a function of a host of other considerations like the trainee's background, the expected future trend of events and the trainee's long-term goals.

Let us now briefly examine what determines training in the two sub-sectors of carpentry and metal-work, beginning with carpentry.

$$Y_5 = 0.9590 + 0.2235Y_3 + 0.7251Y_6 - 0.0113Y_9 \quad (9)$$

(2.239) (3.716) (-2.009)

$$R^2 = 0.450$$

$$DF = 26$$

$$Y_9 = \text{Manhours per week}$$

Some important revelations can be observed from the above equation in that all the parameter estimates are statistically different from zero. Note that duration of stay in Nairobi was an important factor in determining the training. Here trainees are likely to have looked for jobs and failed to obtain employment. So long as they keep on "tarmacking" the more they are likely to be induced to train by those who are already in employment in the carpentry sector.

Still on carpentry, one of the most interesting findings is that there is a negative association between training and manhours of training such that *as manhours of training increases, the number of trainees is likely to decrease*. This is a curious finding. It appears, against expectation, that trainees do not want to be trained for long hours. Is this then an indication of the trade-off between leisure and other commitments?

It appears that as the number of manhours of training tend to increase, most trainees tend to abhor training. Furthermore, the fit of this function is far more superior than that of the other two equations. However, it just explains 45 per cent of the variations, thereby implying a need for a re-specification to try and capture most of the unexplained variation. In spite of this, the finding is tantalizing. May be in the trainee's minds the distinction between "training" and "exploitative work" is blurred.

A reproduction of the above equation but this time in the metal-work sub-sector yields one of the poorest results:

$$Y_5 = 0.3556 + 0.0742Y_3 + 0.5747Y_6 - 0.0040Y_9 \quad (10)$$

(0.618) (1.911) (-1.165)

$$R^2 = 0.190$$

$$DF = 23$$

In this equation, even the parameter estimate for the expected years of training is not significant. And none of the other parameter estimates are significant. The signs displayed by the parameter estimates are the expected ones. However, the fit is very poor suggesting a clear mis-specification of the functions. The mis-specification is once again likely to have resulted from the belief that it is economic variables that are important in training decisions. If we note that some trades like tinsmithing are hereditary, training may have little or nothing at all to do with the considered variables. We suggest that further statistically oriented research should be conducted into what determines training and especially so in metal-work and in particular the *relationship between the trainee and the industry*.

In conclusion, training is important and particularly so in carpentry where the level of formal education is a very important consideration (from the trainees' point of view) unlike in metal-work. In this respect, we reiterate that carpentry calls for high degrees of accuracy and precision and the level of education of necessity will be important upto the unknown optimal level which we could not determine given our research resources. Manhours of training revealed one of the most peculiar aspects in that it displayed a negative sign. One could have expected trainees to prefer more hours so that they can acquire the skills as soon as possible. However, this cost-effective expectation was watered down by the trade-off between leisure and other undertakings, or alternatively by failure to distinguish training from work.

We have already pointed out that decision to train or factors determining training are as diverse as the trainees themselves. We have, however, underlined the fact that they may be more social than economic. To check this, we included an evaluation of factors affecting training from the entrepreneurs point of view. This yielded very poor results thereby confirming earlier observations:

$$X_5 = 1.3188 + 0.1674X_7 - 0.0001X_9 \quad (11)$$

$$(0.983) \quad (-1.165)$$

$$R^2 = 0.017$$

$$DF = 60$$

$$X_5 = 1.4301 - 0.0131X_2 + 0.1652X_7 - 0.0001X_9 \quad (12)$$

(-0.400) (0.963) (-0.220)

$$R^2 = 0.019$$

$$DF = 59$$

X_2 : Experience in years of the entrepreneur

X_5 : Number of trainees in a given enterprise

Note that none of the values of our parameter estimate is statistically different from zero and better still, none of the equations has a remarkable proportion of the variation explained. Let us note that the signs of our parameter estimates are, as expected, safe for experience. As expected, *increased number of trainees leads to decreasing incomes. It would therefore appear that entrepreneurs would favour hiring of skilled labour i.e. skills should be acquired from without.*

We expected the number of trainees to be dependent on the size of the workshop and that size of the enterprise is a function of the entrepreneur's experience, *inter alia* i.e., the larger the workshop, the more the number of trainees, and the more the experience of the entrepreneur, the larger the workshop. This expectation was not realised given the negative sign of the parameter estimate even though statistically insignificant. This is another area which needs further research and perhaps better model specification. Alternatively, it really is not a statistical issue at all!

Those entrepreneurs who have had other training were expected to be more humane in seeing the need for training and were therefore expected to have higher number of trainees. *This is true but the worry is that the variable is of no major importance in determining the number of trainees.*

We therefore reservedly conclude that training is an important requirement but none of the entrepreneurs is willing to undertake the "nursery" exercise. This may be because of the fear of poaching of the trained manpower (local "brain drain") especially when one notes that

training is undertaken at the expense of increased incomes. Training needs are therefore likely to keep outstripping training opportunities and training capacities of the already existing institutions. With this realization, it is relieving to note that Undugu has been consistently trying to harness and enhance training.

We first, however, need to establish one thing i.e. the social economic backgrounds of the trainees and the trainers because our functions have failed to capture some of the determinants of training from either group, even though we have, albeit descriptively, tried to establish the social-economic backgrounds of both trainers and trainees. We strongly suspect that a great deal of this background is beyond statistical, let alone econometric treatment.

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Nonetheless, the fact that the social-economic backgrounds of the trainees and the trainers are not being captured in the training process is a serious shortcoming. It is a pity that the social-economic backgrounds of the trainees and the trainers are not being captured in the training process. It is a pity that the social-economic backgrounds of the trainees and the trainers are not being captured in the training process.

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Those who oppose the idea of training are often wrong. They are often more humane in seeing the need for training and the need for training. They are often more humane in seeing the need for training and the need for training. They are often more humane in seeing the need for training and the need for training.

We therefore conclude that training is an important requirement for the development of the country. It is a pity that the social-economic backgrounds of the trainees and the trainers are not being captured in the training process. It is a pity that the social-economic backgrounds of the trainees and the trainers are not being captured in the training process.

Chapter Six

Summary of Main Findings, Conclusions and Recommendations

Findings and Conclusions: General Issues

1. As expected, the distribution of enterprises reflect locational specialization with Shauri-Moyo specializing in metal-work and Gikomba specializing in carpentry. But when the two sub-sectors are combined Eastleigh, perhaps due to its vastness, heads the list. Surprisingly, Mathare had fewer enterprises than anticipated. Carpentry is slightly dominant accounting for 51.77 per cent of the total enterprises.
2. Eastleigh, which has the highest share of enterprises also had the highest share of total personnel engaged in the enterprises but Gikomba has the highest number of personnel engaged per enterprise, an issue which suggests that carpentry perhaps requires more skill specialization and hence more hands. Shauri-Moyo had the lowest per enterprise engagement because most of the enterprises (metal-work) are single-owned, and single-operated. This suggests that may be there is more employment potential in carpentry though metal-work will undoubtedly continue growing albeit simply in numbers of enterprises (horizontal expansion).
3. On the face of it, it would appear that metal-work is more labour intensive than carpentry. However, it is difficult to arrive at definite conclusions on this issue, just as it is equally difficult to conclusively establish that operational space has an effect on the total number of personnel engaged per enterprise. On the whole however, the two sub-sectors are labour intensive.
4. The social background of business owners is such that they are nearly all male in their mid-thirties, nearly all married to one wife and having more than four children. Furthermore, nearly all of them live in 'poor' areas or 'slums'. In general they can thus be described as having come from 'poor background' a label which

is strengthened by a few other findings such as their educational backgrounds.

5. Business wise, the owners are not business novices. Though by far the majority are unlicensed and have little technical business knowledge, they nonetheless have an optimistic view of business and an intuitional business sense. They operate under a curious, though not unexpected, host of problems but the most prominent problem is City Council harassment. With respect to training in business, the most relevant finding is that the majority of them seem to know little about business practices such as keeping books and where to go for business advice and further training. In spite of all the problems and the nature of business environment, the inescapable conclusion is that more and more entrepreneurs will keep entering the informal sector. Thus, the sector will keep growing.
6. With respect to product differentiation, we were disturbed to note and conclude that more agricultural implements need to be produced from the sub-sectors analysed. We have no doubt that given the dynamism of this sector, it can meet the demand for such implements. The problems here seems to be psychological. The sub-sectors examined seem to have defined themselves, may be for good reasons as producers of urban services and consumer goods (Ng'ethe, Ndongdo and Onyango, 1984).

Findings and Conclusions: Education, Training and Welfare

1. The linkage between formal education and informal sector training is at best ambiguous in some respects, which also means that the linkage between formal education and welfare is an indirect one. The evidence does not ambiguously show that those trainers with more formal education will tend to train more trainees. Infact this relationship is weak. What the evidence shows clearly is that those trainers who have had "other trainings" outside the formal school system will tend to train more. The evidence is also clear in one other respect and that is, the more formal the education, the longer trainees will tend to train and thus acquire more skills. Since, as we have seen,

"skills" lead to more output, formal education can thus indirectly, be argued to lead to more output and thus more welfare.

2. From the Baseline Survey, it turns out that training is perhaps not as widespread as one would have anticipated. Thus 369 out of 593 enterprises do not have any trainees at all. In this respect, Eastleigh "showed" more "willingness" to train than other locations. The surprising location is Gikomba (carpentry) which, though engaging the highest number of personnel per enterprise, had the least trainees per enterprise, thus showing the lowest "propensity" to train. Carpentry seems to show a preference for already trained personnel. Overall, metal-work tends to train more than carpentry. From the sample surveyed it turns out that in labour 1/3 of the business owners do not have trainees. Furthermore, the trainers propensity to train does not seem to be related to their levels of formal education.
3. In terms of employment — as opposed to total engagement which includes trainees — nearly 40 per cent of all enterprises are single-owner and single-operated. In this respect, metal-work is more "notorious" for being single-owner and single-operated. Some would argue that as 60 per cent of all enterprises "engage" somebody else other than the owner, then there is employment potential in these two sub-sectors. Others would argue that the employment potential will really be determined by the pattern of growth. If the pattern, as it seems to be, is one of simple horizontal proliferation of enterprises, then, employment potential might not be very good. This is likely to have some effect on the training potential too. However, we underscore the point that, on the whole, the two sub-sectors are labour intensive.
4. The training background of the business owners shows that most of them have had "other training" outside the formal school system and that, like their current trainees, some of them received some benefits and paid some fees while being trained. In general, therefore, the business owners seem to train their trainees the same way they were trained and of course, imparting the same skills. Thus one doubts whether the training process can create any new technology. In fact the case studies show that it does not. Any new technology therefore must come from outside the training process of the informal sector actors.

5. The above points (4) are strengthened when one looks at the background and the views of the trainees themselves. Again one is struck by the similarities between their backgrounds and those of their trainers or business owners, except in this case the trainees are largely undertaking "other training" for the first time. But the nature of the "other training" they will receive can safely be anticipated from the training process undergone by their trainers who are now business owners.
6. While it is incredibly difficult to fully capture the dynamics of the training process especially when one tries to do so using quantifiable variables, a combination of methods has undoubtedly increased our understanding of the informal sector training process.
7. The welfare of the trainees is undoubtedly linked to the welfare of the trainers. However, in general, there does not seem to be the often expected "exploitation" of trainees, i.e. if one goes by such conventional measures as fees paid, benefits received, trainees attitudes to skills acquired, who imparts the skills, hours worked and trained etc. - measures which we have attempted to utilize in this study. True, the training might be "illegal" by strict definition but it does not seem to be unduly exploitative. Part of this whole problem however, lies in the fact that it is difficult to adequately capture "exploitation" especially when one is dealing with a myriad of social factors and attitudes in such crucial areas as fee payment, and selection of trainees. In spite of these problems of definition, we still believe and conclude that it would be extremely difficult to come up with a *formal legal* definition of exploitation or non-exploitation which at the same time would not kill the flexibility of the training process in the informal sector. In any case, a legal definition would be meaningless when most of the trainers are unlicensed. Thus such a definition would be basically unenforceable. All the above notwithstanding, we underscore the point that there might be a "hint" of exploitation in the surprising finding that trainees prefer to train for *shorter* and not *longer* hours.
8. Training is *perceived* as being "*valuable*" by both trainers and trainees, though surprisingly the trainees seem to be a bit too happy, in our opinion, with the training process. Thus they seem

to be satisfied with those who train them and the skills acquired. They even seem to think that the number of hours they are trained are too many! However, both trainers and trainees do recognise the value of more "technical training". They all agree that there should be "training institutions" though about half have no idea where to go for further training.

9. Training undoubtedly *has value* in improving the welfare of those who acquire the skills. Though some of this value is difficult to measure, we conclude for example, that skills do help in facilitating self-employment, a goal which seems to be the primary one for those being trained in the informal sector.
10. Furthermore, from the statistical analysis we can conclude that:
 - (a) Output is best explained by skilled labour and capital. Thus when our concern is the *total welfare*, we must equally emphasise these two. Thus, skills lead to more extensive use of capital such that the more skills possessed, the more capital needed by an individual.
 - (b) When output is considered in the light of the sub-sectors, the conclusion is still that skilled labour produces more, in both metal-work and carpentry, the *total labour* i.e. a combination of skilled and unskilled labour. This underlines the need for acquiring skills from somewhere.
 - (c) Further disaggregation shows that skills acquisition is more important in carpentry than in metal-work in terms of improving the output, and thus the incomes and welfare in general.

Overall Conclusion

It is evident from the foregoing that training is important in the post-school job lottery. However, it is still regrettable that the total dynamics of the training is still somewhat illusive. Thus while social-economic functions are likely to perform better in explaining the underlying driving forces into skill-hunting, the total outcome demands more than these functions. Thus we must, therefore, content ourselves with, for example, the mis-specification problem resulting from omitted variables and mathematical formulation. We can nevertheless, conclude

that the trainees have shown economic rationality in choosing training. With employment being difficult to come by, training institutions must learn how to absorb more trainees who are out to camouflage unemployment and/or those who are genuinely seeking training to widen and brighten their employment hopes and opportunities.

Data for the business owners showed unequivocally that training or skills acquired do lead to more output and thus more incomes. Though output and incomes do not fully operationalize the concept of "welfare", they are still good proxies. Skills do lead to more welfare as the data show. However, while recommending training, we must re-emphasize the finding that skills only lead to increased welfare if they are utilized in conjunction with capital. Thus, whoever is committed to increased welfare in these two sub-sectors, must not only be committed to skills acquisitions, but also equally committed to looking for the complementary capital.

Related to the issue of capital and skills is, of course, the much more complicated question of, what type of skills? As already stated, it would appear from the case studies and also from the questionnaire responses and margin notes that the trainees would prefer "more technical" training. But then, once again, we must disaggregate the concept of "technical training". We believe that this is where organisations like the Undugu Society begin to come in. They must start defining "technical training" so that it becomes relevant to welfare improvement. Furthermore, given the intimate involvement with this sector, they are perhaps best situated to disentangle that curious mixture of social, economic, philanthropic, business and other factors and attitudes which form the definition of the informal sector and undoubtedly influence the sector's training as we have noted in this study. Only after can training be correctly situated.

Main Recommendations

1. Training in both metal-work and carpentry should be encouraged and intensified because it has obvious returns as demonstrated in this study.
2. It is tempting to recommend that effort should be concentrated in the carpentry sub-sector where there is more employment potential and where more skills seem to be needed, and in those

areas like Eastleigh which tend to train more. However, it is recommended that attention be paid to both sub-sectors and to all areas, in the name of equity. After all metal-work is more accommodating to trainees and this should be encouraged. The "laggard areas" in terms of training, will undoubtedly pick up with some incentives.

3. There is obvious ignorance on where to go for training particularly on business practices. Therefore, an educational campaign is needed to educate informal sector trainers on places where they can go to acquire more modern technology and some business management practices. Undugu Society is one such institution and it should assist in compiling a list of other similar institutions perhaps indicating at the same time their strengths and weaknesses in terms of resource availability.
4. It is true that what respondents need is more "technical training". In this respect it is recommended that Undugu Society, in conjunction with the trainers, work out a relevant definition of "technical training". This definition should, as a matter of course, be tied to increased productivity.
5. Training in the informal sector should be carried out with minimal government intervention. The reasons for this are many, including the "illegal" nature of most of the enterprises. It is therefore, recommended that voluntary organisations such as Undugu Society, play the central role in organising the training and defining the training needs. However, this should be done in consultation with the government whenever possible. In this respect, the role of the government would be primarily to legitimize and therefore accord social acceptability to such training.
6. We note that training in the informal sector is expensive for the trainers as it leads to decreasing output. Therefore, it is recommended that a system be designed to compensate the trainers, in addition to the fees the trainers collect from the trainees. The government can play an important role in providing additional, though small incentives to the trainers. One such incentive could be the guarantee that trainees serve as a substitute for a licence to operate.

7. With the majority of operators unlicensed, we are unable to recommend a legal definition of "trainees exploitation". In any case, we do not think there is much exploitation. Furthermore, an introduction of, say, the Industrial Training Act to the informal sector would simply kill the flexibility of the training system. It is therefore, recommended that institutions such as Undugu be given access to the relevant Government institutions and be authorised among other things, to report any cases of trainee exploitation as the occasions may arise. That way, individual cases of excessive exploitation can be checked without unduly interfering with the current institutional set up in the informal sector and therefore without controlling the sector too much.
8. Of crucial importance is the fact that productivity is determined by both skills and capital. While institutions such as Undugu can provide the skills, it is unlikely that they have access to sufficient complementary capital. It is recommended that as part of the incentive to train, some small amounts of resources, not necessarily from the Treasury be made available to Undugu and similar institutions. Such resources could come from both internal and external donors with the blessing of the government. The resources would then be administered by Undugu and other organisations involved in training, on a loan basis, using any formula they can work out with the entrepreneurs.
9. It was not possible to ascertain the role of "theory" in training. However, from the case studies and other observations, "theory" is part of the "technical" training the trainers and trainees seem to be asking for. In any case, without some theory it is unlikely that product designs will improve. Consequently, the informal sector will continue copying technology from outside sources, some of which might not be relevant. Therefore relevant training as understood by the trainers, the trainees, and particularly by such organisations as Undugu is recommended. The trainers in particular, should be taught the theoretical aspects of their trades, including product designs, so that they can transmit these skills to their trainees.
10. An expanded training programme by Undugu, accompanied by an evaluation of the programme may be once every two years when the results of the training can be better ascertained and

when use of an untrained control group would be of some use, is necessary. Such expanded future programme could consider offering longer courses which, as we have seen, are cheaper. Furthermore, such a programme should include simple aspects of business operations such as book-keeping and marketing skills.

11. In the expanded programme, it is recommended that emphasis be given to transmitting technology and skills which are relevant to the agricultural sector particularly in metal-work. We conclude that though the urban informal sector has its own peculiarities, it should be encouraged, indeed oriented towards complementing the rural informal sector in such a way that both increase their output of agricultural implements as opposed to primarily producing urban services and consumer items.

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Appendix

Two Illustrative case Studies

J. Ondu Engineering Workshop: Metal-Work

Mr. Joshua Ondu owns a metal workshop in Eastleigh Section One. Aged about 36 years which is just about the mean for the businessmen, he is married to one wife and has 4 children aged between 3 and 13 years. He has 3 other dependants in town whom he helps by providing money, food and accommodation. Mr. Ondu hails from Nyanza Province, about 300 miles away but has been in Nairobi for the last 15 years. He went to school up to standard 7 (7 years), obtained the Certificate of Primary Education (CPE) but could not continue with formal education due to lack of school fees. However, since leaving school he has received a further 2 years training in metal work in Jinja, Uganda. Typically, the training was received through his brothers intervention and was given by an Asian businessman. In 1974, he sat and passed the Government Grade III electric and gas welding test.

Mr. Ondu claims that he benefitted from the training. In particular he got the necessary experience as the immediate benefit. While being trained he "received", as benefits, pocket money, overall, tools and introduction to possible employers. In turn, he is now training 3 people, and has trained three others since he started his business 4 years ago. The training he offers lasts 1¹/₂ years, which is 6 months less than the training he received. He charges Kshs. 1,000 for the 1¹/₂ years training which is in general metal-work. The money is paid in 4 instalments. He claims that he does the actual training himself and will accept anybody as a trainee who can afford the fee. Thus he is probably more "businesslike" in this respect, than the average businessman in his trade. Like most of his colleagues however, he offers pocket money and food as benefits to the trainees.

He tries to keep in touch with his former trainees and, therefore, knows that they are all employed. In fact he introduced some of them to their present employers. It seems that there is some kind of social bond between him and his trainees, which is further illustrated by the fact that the trainees do not leave immediately after training. Instead, they stay for an additional 6 months during which they "help me if there is enough work". Mr. Ondu, like most businessmen in this study, feels that he and his workers need more training possibly at a place like the

Kenya Polytechnic. He regrets, though, that he does not receive any kind of training help from anybody. He knows about Undugu though, and also knows that they train apprentices.

Before starting his business 4 years ago, Joshua Ondu was employed in Nairobi as a welder (fitter). He started his current business which he himself manages full time, with Kshs. 10,000 "terminal benefits from his former employer". The main reason for wanting to set up his own business was that he wanted "to improve the economic situation". Though he has no business licence, he has a registration certificate. He chose Eastleigh because the area was near his residence and because he would be near to customers. He however needed the intervention of friends before he could obtain access to the plot from the landlord to whom he pays Kshs. 600 per month as rent. He shares the plot with another tenant who also pays Kshs. 600 per month. However, the decision to start the business was entirely his. He therefore started the business *alone* and continues to operate it alone. Initially, he encountered all kinds of problems such as expensive tools, lack of customers, high cost of overheads such as light and water, but he managed to survive the initial problems.

Currently, Mr. Ondu employs 2 people "part-time" in addition to his 3 trainees. The two work 6 days a week each and they are paid Kshs. 48 per week each. He regards his "part-time" employees as "semi-skilled" and that probably explains their meagre wages. In addition to the two "semi-skilled - part-time employees" he also gets full-time help from one relative. Thus, he can afford to operate 9 hours a day for 6 days a week.

In the workshop, Mr. Ondu produces in a month, sixty steel windows, four gates, six steel doors, forty grilles, six beds, and eight car seat frames. Of these he manages to sell thirty windows, two gates, three steel doors, twenty grilles, four beds, and all of the eight car seat frames. In all then, he manages to sell about fifty per cent of what he produces per month. He sells mostly to Nairobi customers though he is not in any way restricted as to where he can sell his products. He obtains most of his inputs such as welding rods, paints, solid bars, pipes, weld mesh, hacksaw blades, etc. from the Industrial Area which is about five kilometres away. Inside the workshop, Mr. Ondu has two welding machines, two electric grinding machines, four hacksaw frames, four hammers, two tape measures, two vices and one bench. In addition, he rents one welding machine.

The facility has electricity, security and roads but not tap water, toilets, showers etc. Thus he has the bare production requirements. The workshop is about 30 ft by 15 ft and is in an open area. The landlord has imposed certain conditions such as "no access to toilets" and "no water taps". Hence Mr. Ondu buys water from a nearby kiosk and uses a "nearby hotel's toilet". No wonder then that he certainly would build a better place if he were allowed to, so as to shelter his workshop and provide, particularly, water and toilets. Alternatively, he would be prepared to pay a maximum of Kshs. 1,500 per month for a better place. He would like to expand the business, but lack of capital is the main constraint. In addition, there are no ready markets for his products. He has some land but has no title deed. He also faces other problems such as harassment from City Council askaris who sometimes confiscate his machinery because he "operates from a residential place and not an authorized area". Other problems include ignorance of book-keeping. Thus "I do not know whether I am making a profit or incurring losses". Furthermore he faces transport problems when purchasing inputs and selling products. He uses public means (matatus) for these purposes. No wonder then he would like to move from Eastleigh to Gikomba where he feels "things are easier". In spite of all this he describes his business as "moderate". It had better be. After all he pays Kshs 600.00 per month in rent and lives with eight dependants under the same roof!

Observations:

1. Training facilities inadequate, tools adequate for production purposes and already trained people, but inadequate for trainees.
2. Training takes place in the open space.
3. During training, the owner works together with the trainees. Thus he trains them while producing. There is thus no separate time for training, and there is no space for training alone.
4. Training mainly is practical aspects of production.
5. Only one type of skill is usually taught *unless* and *until* a customer brings something new. In transmitting the skill, no guidelines are used, no syllabus exists, and only a recommendation letter is given at the end of training.

6. From Undugu, the trainer stated that he would appreciate theory training, (since he already has the practical aspects up to Grade III), management studies, teaching methods on how to teach practicals, skills on how to organize workshops, etc.
7. The trainees themselves complained that they had no bus fare, no pocket money, and no theoretical background. They also complained of long "training" hours - 8 a.m. to 6 p.m. without compensatory overtime payment. They further claimed that they certainly needed the theory type training offered by Undugu.

Overall Comment:

Mr. Ondu is *typical of the current informal sector as it has emerged from this study*: Motivated but lacking in resources, willing to assist others but individualistic, optimistic inspite of problems and willing to learn in the face of lost learning opportunities in the past. It is this type of operator whom Undugu could help most.

Tireless Workshop: Carpentry

Mr. David Katiku runs Tireless Workshop which is situated near St. Teresa's High School, Eastleigh. He is aged about 54 years, is married to one wife and has seven children aged between 5 and 28 years and one other dependant who is his mother. Mr. Katiku hails from Kangundo, Machakos District, which is about 30 kms from Nairobi. He came to Nairobi 26 years ago which is way above the average number of residence years for the businessmen in this study. Mr. Katiku owns the business with another partner and he manages it full time with the help of his partner. He is a sort of senior advisor. He started the business in 1960. Mr. Katiku went to school up to standard Four (4 years) and hence did not obtain any formal certificate. He stopped schooling due to lack of school fees when his father died. In addition, he had to look after his younger brothers and sisters. After school, he received 2 years of training in carpentry from an uncle at Gikomba in Nairobi.

He benefitted from the training by "gaining the necessary experience to start his own business". During the training he received some "benefits" such as the Kshs. 2 per day for food. He is currently not training anybody, though in the past he has trained a total of 8 apprentices. When he was training he did not charge any fees.

Surprisingly he would accept "anybody who comes" and would train them himself. In addition "other *fundis*" would also do some training. As part of the training, he would offer benefits such as access to tools and pocket money. In addition to "knowing what happened" to his trainees, Mr. Katiku claims that he helped at least two, to enrol for grade tests and advised others on where to get tools. His trainees usually stayed for about a year after training during which he would "employ them on a temporary basis". He "feels" rather unconvincingly that he himself and those he has trained and employed need more training particularly in "theory, in joinery and design". However, he does not know of any place he could go for such training but thinks there should certainly be such a place. He has heard of Undugu and he "hears that it helps the poor".

Before starting his business alone 24 years ago, Mr. Katiku was employed "by Asians" but then he chose self-employment because it is "advantageous - you become self-reliant". Furthermore, he was influenced by the "rapid progress my own employer was making". He does not have any other business in town except the present one in Eastleigh. However, he originally started in Gikomba with his own 100 shillings savings, after finishing his apprenticeship which lasted from 1958 - 1960. His original premises at Gikomba was demolished by authorities "and this is the only other place we found readily". He did not, and still does not have a licence. He obtained the money to start the business from "contractual employment". With this money he bought the tools one at a time while still in employment. Having bought all the necessary tools, he simply got an open space and built a shed without authority from anybody. Initially he encountered the "usual" problems. There were no qualified trainers, there was stiff competition, he did not have enough tools and had "problems" with the authorities.

Currently, Mr. Katiku employs no one, either full time or part-time. However, he gets help from his son who works occasionally. He manages to keep his workshop open 12 hours a day, 6 days a week. In the workshop, Mr. Katiku produces, in a month, two cupboards, thirty stools, thirty coffee tables and four beds. In other words, he manages to sell nearly all that he produces. And where does he sell them? He sells them to his Eastleigh customers. He obtains most of his inputs such as wood, nails, gum, paints, formica, sandpaper, bolts and screws, foam, springs etc. from Gikomba and Eastleigh. On average

he estimates that his inputs come from within a radius of six kilometres.

Inside the workshop Mr. Katiku has quite a few tools as expected from someone who has been in operation that long. Thus he has one Jack Plane No.5 (worth 550/-)* one Jack Plane No.4 (450/-) four Handsaws (180/-), one Drill (360/-), three Chisels (150/-), one Plough (1,200/-), one Gauge (150/-), one Square (50/-), one Screwdriver (18/-), two Hammers (110/-) and one Cramp (560/-). All the tools, except the screw driver are old and imported. Furthermore, he shares tools with neighbouring producers. He is not quite happy with his current location and would, therefore, like to move to 1st Avenue Eastleigh where he feels there are more customers. One advantage though, with the present location is that he does not pay rent. But the disadvantages, in addition to lack of customers seem to outweigh the advantages. Thus he has no electricity, no running water, no toilets, no security and only a murram road. The operating space is also fairly small - roughly about 20 ft by 40 ft. No wonder then he would like to build a better place in order to install such facilities as water, electricity and toilets. Alternatively he would be prepared to pay rent, up to a maximum of Kshs. 500 per month for a better place. He however is not even sure the business can afford the rent. But, if he were to somehow obtain the necessary money, he would use it to build a workshop (shs.3,000/-), buy materials (shs. 5,000/-) and buy machines/tools (shs. 20,000/-). He has land security and the necessary title deed though he has never tried to use the security to borrow money. In fact he, has never borrowed money from any source whatsoever!

Like other operators in his business, Mr. Katiku continues to encounter all types of problems which include lack of transport, City Council harassment since he has no licence of any kind, competition, dust and mud etc. In addition, he stays with the one son who helps him in the workshop. Still, he describes his business and his financial situation as "moderate"; a very optimistic description in light of the fact that Mr. Katiku does not even keep any business records or books apart from sales receipts, and has been steadily declining, it seems.

Observations:

* Denomination - Kenya Shillings.

1. When Mr. Katiku used to have trainees, he would test them himself on how to make a product. When he was satisfied that they knew the job, he would "graduate" them after about 3 years. Thus his training was the "old fashioned" long apprenticeship.
2. He stopped training because the business was going down. In addition, he noticed that trainees would run away if and when he did not have pocket money for them. He also broke a lot of tools and materials.
3. His sales methods, include taking products such as stools around the residential houses, and displaying others, like cupboards, outside the workshop.
4. The products clearly show that Mr. Katiku has not mastered the art of "finishing touches". Thus he makes simple furniture of relatively low quality.
5. Mr. Katiku might be too old to learn technical skills such as joinery and design but perhaps not too old to learn a few things on business management such as marketing. Either way he needs more motivation to learn new things. According to him "business does not need education".
6. He has built a reputation though with his customers and seems quite assured of his existence.

Overall comment:

Mr. Katiku is *typical of the old informal sector*: Simple in approach, survivor in stiff competition, little growth if any, and optimistic, in spite of many problems. Mr. Katiku's type perhaps needs more co-operation with others than training.